ABSTRACTS OF

Clinical Lectures

ON

INFLAMMATION OF THE MIDDLE EAR AND ITS COMPLICATIONS.[1]

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GENTLEMEN,—In these lectures I propose to deal briefly with inflammation of the middle ear, the several conditions which complicate it, and their treatment. I will first call your attention to some points in the anatomy of the ear which are of much surgical interest, and which have been very incorrectly described by many surgeons and anatomists. There is situated in the substance of the petrous bone, immediately behind the middle ear, an ovate cavity. This communicates with the tympanum at its upper and back part by means of a small aperture, which varies in size, and which has to its inner side the bony channel containing the facial nerve, a relationship of great surgical importance. This space exists at birth, and its size increases proportionately with that of the middle ear. It seems to me that the sole, but important, purpose of this cavity is to secrete a viscid mucus, which lubricates the lining membrane and contents of the middle ear, a function somewhat analogous to that of the sacculus in the larynx. Since the aperture of communication with the middle ear is at the highest limit of both cavities, it is probable that this space is constantly filled with mucus, only the overflow passing on into the tympanum. It may for convenience be spoken of as the antrum, but to describe it as the "mastoid" antrum is anatomically inaccurate, since it suggests that it has some anatomical, developmental or functional, relationship with the mastoid cells. Later in life, if cellular spaces develop in the mastoid process, the antrum may come into communication with them; but this is only an occasional, and to a great extent an accidental, occurrence. The degree of development of these so-called mastoid cells is most variable, and in many cases they are not represented as definite macroscopic spaces; while in some the bone may be extremely dense. Superiorly the antrum is in relation with the middle fossa of the skull, with the posterior fossa and, to a variable extent, with the groove for the lateral sinus posteriorly, and externally with the mastoid process and with its cellular spaces if they are present. In the adult it lies at a depth from the surface of the mastoid process which often exceeds three-quarters of an inch. Except where it opens into the tympanum and at its occasional communication with the mastoid cells, it is completely surrounded by dense bone. It is difficult to say what are the precise functions of the membrana tympani and the ossicles. Perhaps not the least important function of the former is to prevent evaporation of the mucus which lubricates and moistens the middle ear and to obviate the entry of cold air. That the presence of the bones and membranes is not necessary for hearing sounds such as those of ordinary conversation is obvious from the difficulty that one experiences in detecting, by this test, any deficiency of hearing in cases in which the membrane and the contents of the tympanum have been completely removed, provided the ear is kept properly clean and free from inflammation. At the same time, sounds such as the ticking of a watch are heard much less distinctly by such an ear than by one which is anatomically perfect. In acute inflammation of the middle ear the antral and tympanic cavities become distended with mucus or muco-pus, causing the patient great pain in and about the ear and mastoid process, later radiating over the whole side of the head. Often the pressure exerted by the contents of the middle ear upon the inflamed membrana tympani causes it to give way, and a perforation to result. Not very rarely the membrane does not yield, and symptoms appear which are due to the tension exerted by the retained secretion, and which are precisely similar to those which result from inflammatory products in a condition of tension in any other bone. Usually, with judicious treatment, the perforation which forms in the membrana tympani heals when the tympanum ceases to be tensely distended by secretion. In a large proportion of cases, however, owing usually to improper treatment, or without any form of treatment being adopted, the perforation does not close, the secretion in the antrum and middle ear decomposes, becomes concentrated and caseous from the free evaporation consequent upon the deficiency in the membrane, and offensive and intensely irritating. It produces by its presence an abundant purulent discharge from the mucous membrane, and a condition results which is similar to that present in some forms of ozæna. The inflammation set up by the decomposing secretion extends to the internal ear, and bone conduction may become considerably impaired.

In these cases—owing probably to some partial or complete occlusion of the antral aperture, and as a consequence of increased tension of inflammatory products in the antrum—this cavity gradually increases in size, usually growing more rapidly at the expense of its outer than its other walls, probably because of its general lesser density. In such cases I have found the antrum large enough to contain a large-sized cherry. As it enlarges it may expose the dura mater of either or both fossæ, and in two cases I have seen much of the wall of the enlarged antral cavity formed for many weeks by the dura mater and lateral sinus without the contents of the sinus having undergone any apparent thrombosis and also without any clinical evidence of thrombosis or meningitis. The possible consequences of increased tension in the antral cavity, whether occurring during a first attack of acute inflammation of the middle ear, or, as it more frequently does, during an acute attack grafted upon chronic disease of the tympanum, are the following:—Inflammation of the bone in relation with the antrum, of the periosteum covering the outer surface of the mastoid process and the interior of the external auditory meatus, and of the dura mater lining the adjacent portions of the middle and posterior fossæ. In the large proportion of cases of inflammation of the bone consequent on a primary acute otitis no pus is found in the antrum, or in the cancellous spaces in the mastoid bone, or beneath the periosteum or dura mater; but the periosteum or dura mater, or both, may be much swollen and œdematous, the latter structure, owing to its density, showing such naked-eye indications of inflammation much less obviously than the more vascular and loose periosteum. The antrum and the cancellous spaces of the mastoid process are filled with a glairy fluid, and the bone is very vascular and bleeds readily.

In other cases, and specially when an acute attack is budded on to a chronic one, all these conditions are exaggerated, and pus may exist between the periosteum and the mastoid process, or between the dura mater and bone, or in both situations. The degree of inflammation of the mastoid process gives the surgeon no accurate indication of the condition of the dura mater, since the former may present no clinical symptoms of inflammation, while the dura mater in relation with the antrum may be very acutely inflamed. This is obviously a matter of the greatest clinical importance, since pus collected between the bone and dura mater may produce septic arachnitis by yielding of the dura mater, or a septic thrombosis of the lateral sinus may result. It is not necessary that the sinus itself be infected by septic inflammation of its wall, since the same process may exist in one of its venous radicles. Septic basic meningitis occasionally results from the extension of inflammation along the seventh pair of nerves, and cerebellar, and more frequently cerebral, abscesses sometimes exist as complications.

The differential diagnosis between these several conditions may in some cases be very distinct; while in others, and perhaps the large majority of cases, a probable diagnosis only can be made. Fortunately, as I shall show later, this makes no difference in the course of treatment which should be adopted. I would allude first to a symptom whose importance is variously gauged by different surgeons—namely, optic neuritis. As I understand it, optic neuritis occurs frequently in the following complications of otitis media—namely, cerebral abscess, septic basic meningitis, inflammation of the dura mater of the middle or posterior fossa, and in thrombosis of the lateral sinus, the plugging of whose channel has extended forwards to the cavernous sinus.

[1] Being a summary of two Clinical Post-graduate Lectures delivered during the summer session at the Hospital for Sick Children.

Much the most frequent complication which, in my opinion, is associated with optic neuritis is an acute inflammation of the dura mater of the posterior fossa in immediate relation with the antrum, inflammation being usually more frequent and more extensive in this than in the middle fossa, and the extent of this inflammation may frequently be determined by the condition of the retina. Taken in connexion with other symptoms, I consider it an indication of the most vital importance and one that has enabled me to save lives in which the delay necessary for the development of other confirmatory symptoms would certainly have proved fatal. Septic thrombosis of the lateral sinuses or of one of its radicles in the temporal bone presents a characteristic series of symptoms which are unmistakable—namely, the frequent recurrence of rigors. Optic neuritis is usually accidental in this condition, and results either from an extension of the thrombus to the cavernous sinus sufficient to interfere with the circulation through the retinal vessels, or from a considerable area of the dura mater beyond the limit of the sinus being affected by the same inflammation which produced the septic thrombosis, the neuritis being brought about in the manner already described. The symptoms presented by abscesses in the temporo-sphenoidal lobe or in the cerebellum vary enormously. In some cases they may be so obvious as in certain published cases to make one wonder at the apparently inexplicable and prolonged delay in interference on the part of the surgeon as much as at the occasional amazingly slow progress of what is obviously a very serious condition. On the other hand, they may be most obscure and ill-defined, and but a suspicion of their existence may exist up to within a few hours of death. This is particularly the case in childhood. The symptoms indicating the presence of extensive meningitis are usually unmistakable, but whether the condition is due to direct extension along the seventh pair, or to rupture of a subdural abscess, or to a cerebral abscess, is often not so readily determined. At the same time, very marked symptoms characteristic of meningitis may result from varying degrees of inflammation of the dura mater, without any perforation of that membrane having taken place. It is therefore obvious that, since it is impossible in a large proportion of cases to determine whether the meningitis indicates a condition that is remediable by operation or not, we should interfere actively in all cases of meningitis, apparently resulting from disease of the middle ear.

About the particular modes of treatment of inflammation of the middle ear and its complications much difference of opinion exists; but I am convinced that the more experience a surgeon has of such conditions the more he will recognise the importance of interfering actively and with as little delay as possible should any indication for interference arise. In such cases, "if in doubt, operate." In no surgical condition is a surgeon called upon to act frequently upon less certain evidence, and with more skill and promptitude, and at the same time with perhaps less risk to the patient, than in some of the complications of middle ear disease, and especially in that form which consists in the collection of pus between the bone and dura mater forming an abscess that may at any moment end fatally by bursting into the arachnoid cavity. In acute inflammation of the middle ear very great benefit may in suitable cases be obtained from leeching, free blistering, warm applications, irrigations, incision of the membrana tympani, &c. Some aural surgeons have ridiculed the possibility of any benefit arising from blistering and other forms of counter-irritation, and have given reasons for so doing which seem to me to be incorrect. I have certainly on very many occasions obtained most marked benefit from free counter-irritation in primary otitis media associated with much pain, swelling, and tenderness about the mastoid process; and it seems to me that if counter-irritation produces any benefit at all, these are just the mechanical conditions for its application with advantage.

In my experience, complications of middle ear inflammation occur less frequently in a primary acute attack than in an acute attack intervening on a chronic otitis media, probably from the gradually progressive increase in size of the antrum in such cases. In all complications I should advise the adoption of a definite operative sequence, upon the principle that it is of vital importance in every case to attack the primary source of the disease—namely, the antrum,—and by obliterating that cavity to remove any possible complication in future. It seems to me that in a case in which the complication is obviously cerebral abscess, it is ridiculous to be satisfied with draining the abscess, leaving the middle ear and antrum untouched and the patient unsafe from a similar or other complication at a later date. The course I would suggest in any apparently complicated case is the following. Expose freely and thoroughly the mastoid process by any form of incision you prefer. Draw the ear well forward and define the posterior and upper margin of the external auditory meatus. The antrum lies just behind and above the posterior superior margin of the bony aperture. Remove the mastoid process with a gouge, using a heavy wooden mallet; the heavier the mallet within moderation the more easily and safely can the gouge be used. To use a trephine or drill is not only unsafe in the extreme, but inefficient for the purpose. I have found a fairly large gouge with a square edge suitable for doing the rougher part of the work, and small gouges with rounded cutting edges better for the more delicate portions of the operation. Much care must be taken in removing bone, as the dura mater of the middle or posterior fossa may be opened, and septic arachnitis result, or the lateral sinus may be incised. This last accident does not appear to be so frequently followed by serious symptoms as one would expect. Of course, in the hands of an unskilful operator the gouge is at least as dangerous as a trephine or even the more useless drill, and I have heard of its being plunged into the substance of the brain, but with moderate care such accidents are readily avoided.

An important advantage of the gouge over the trephine is that it renders the surgeon independent of the varying relative positions of the lateral sinus, dura mater, and antrum. In cutting down on the antrum in inflammation of the mastoid process, if it contains pus or foul caseous material, I habitually expose the dura mater of the middle and posterior fossæ without harm ever having resulted from so doing. It has been my good fortune on several occasions to expose in cases where there was no indication of their existence small subdural abscesses in one or both fossæ, which if left alone would in all probability have terminated fatally. If the wall of the subdural abscess be formed wholly or in part by the lateral sinus, unless clinical evidence of septic thrombosis exists in the form of succeeding rigors, it is not necessary to do more than remove the pus and clean the dura mater. This I have found quite sufficient in several cases. If, however, with succeeding rigors the sinus is thrombosed, the jugular vein should be tied below the clot, the clot removed, and the sinus and vein irrigated and drained.[2] If the sinus is obviously not completely thrombosed various measures may be adopted. It is difficult to argue from the results of individual cases as to the advisability of adopting any one universally. For instance, in a case of subdural abscess involving the wall of the lateral sinus, which was not thrombosed, and which was associated with successive rigors, I ligatured the internal jugular vein preparatory to ligaturing the sinus outside the torcular, and opening it up at the seat of the abscess. Severe symptoms followed the ligature of the jugular vein, and necessitated my postponing further treatment. The patient had a rigor on the following day. Then, on exploring the sinus with a view to ligaturing it, it was found to be completely thrombosed in the area exposed. No further operative measures were adopted, and the child recovered without a bad symptom.[3] With this satisfactory result I would contrast another apparently identical case. A small subdural abscess involved the wall of the sinus which was not thrombosed. As in the last case, there had been several rigors. The internal jugular vein and the lateral sinus outside the torcular were ligatured, the opening of the sinus at the seat of the abscess being postponed to allow of its thrombosing as in the preceding case. Unfortunately, in the interval, the thrombosis extended along the

[2] This mode of treatment was, I believe, originally suggested by Mr. Victor Horsley, and has been frequently carried out with complete success. The following are descriptions of several such operations:—Five Complicated Cases of Disease of Middle Ear, by W. Arbuthnot Lane, Trans. Clin. Soc., 1889; On the Removal of Pyæmic Thrombi from Lateral Sinus, by C. A. Ballance, THE LANCET, May, 1890; Zur Operativen Behandlung der Sinusthrombose, von Dr. Fritz A. Salzer, Wiener Klin. Wochenschr., 1890, No. 34; Two Cases of Middle Ear Disease complicated by Thrombosis and Suppuration of the Lateral Sinus, with Signs of Pyæmia, successfully treated, by G. H. Makins, THE LANCET, June 6th, 1891.

[3] The Treatment of Pyæmia consequent upon Disease of the Middle Ear unassociated with Thrombosis of the Lateral Sinus, Brit. Med. Jour., June 28th, 1890.

petrosal sinuses to the cavernous sinus, and a fatal termination ensued. If I had opened the sinus and plugged it at the time of the operation, as I shall always do in future, I should probably have saved my patient. I was, however, influenced by the progress of the last case, and did not wish to expose the child to any risk which could be avoided. The same treatment would apply to septic thrombosis involving a radicle of the lateral sinus. It has been recommended that after the vein has been tied in the neck, the sinus, though not thrombosed, be opened where exposed, and not also ligated outside the torcular, on the ground that it would be difficult to keep the last wound aseptic. It seems to me that the risk of infection would be small as compared to the advantage which would be gained by the closure of the sinus preparatory to its being opened, which could then be done thoroughly and leisurely. If the opening of the sinus, with the subsequent plugging, can be done effectually where it is exposed without previous ligation, the slight risk of infection consequent upon the passage of a ligature might be avoided. I have not yet read of any case in which a sinus which was not thrombosed or ligatured outside the torcular was deliberately opened and plugged, but from what I have seen of the hæmorrhage which results from a tear in a sinus in fracture of the skull, I should imagine that one's view of the parts would be obscured a little by the free flow of blood, and that the removal of any septic thrombus, the introduction of a sufficient plug into the sinus,[4] and the subsequent thorough irrigation and cleansing of the middle ear might be accompanied by some difficulty. Having failed to find anything so far, the cerebrum or temporo-sphenoidal lobes may be thoroughly explored by a fine aspirating needle through the areas of the dura mater of the middle and posterior fossæ which have been exposed behind and above the meatus; and if pus is found, the abscess cavity may be drained through this opening in the skull, or a separate opening may be made, as may seem advisable. I have never experienced any difficulty or evil result from needling in this manner in this region. The pus from the cerebral abscess is often very foul, and the point of opening here indicated bears in the large majority of cases a very suitable relation to an abscess either in the temporo-sphenoidal lobe or cerebellum; and it seems to me that in a large majority of cases it is the best place to utilise for this purpose. In any case, whatever else is done, the antrum must be obliterated, and the possibility of its again existing as a cul-de-sac removed by bevelling down the bone, so that its inner wall forms the floor of a deep excavation. At the same time the middle ear should be thoroughly cleared and cleansed, any remains of membrana tympani removed, and a large communication established into the back of the middle ear. Much care must be exercised at this stage to avoid injury to the facial nerve and to the inner wall of the tympanum. For cleansing the middle ear I leave a silver drain in position, so that its end rests upon the floor of the antrum, and I trust largely to frequent irrigation and to free introduction of glycerine and iodoform to obviate septic conditions. I do not think one can rely on any single irrigation of the middle ear &c., however powerful the antiseptic used. If no pus is found beneath the dura mater or in the brain, and clinical evidence of meningitis exists, we may conclude that it is primary, and probably due to the extension of inflammation along the sheath of the seventh pair of nerves, and that no treatment can be of any service. In chronic middle ear disease, where there is much deafness, foul discharge, recurrent attacks of pain in the mastoid process, &c., I have, after the failure of ordinary treatment, cleared the middle ear and obliterated the antrum, restoring to the patient in most cases more or less perfect capacity for hearing ordinary conversation, a freedom from discharge, and an absence of subsequent risk from complications. In this, as in the previous similar operative treatment already described, the patient for the future irrigates the middle ear once a day with warm water, then introduces a drop of glycerine and iodoform into the meatus, and then a plug of cotton-wool or a compressed cap of the same substance is inserted in order to prevent evaporation. By these means the functions of the antrum and of the membrana tympani are replaced artificially and satisfactorily.

[4] Some of this difficulty may be obviated by the use of a plug of fine catgut, as suggested by Mr. Makins. *Vide* THE LANCET, June 6th, 1891, page 1260: Two Cases of Middle Ear Disease complicated by Thrombosis, &c.

ON SALINE TRANSFUSIONS IN CHOLERA, HÆMORRHAGE, AND CHLOROFORM COLLAPSE.

By BENJAMIN WARD RICHARDSON, M.D., F.R.S.

MR. ARBUTHNOT LANE and Mr. FRANCIS HEATHERLEY in their late able communications to THE LANCET revive a long-forgotten but most important subject—namely, the effect of saline solutions injected into the venous circulation in states of collapse. The phenomena of temporary resuscitation following upon such injection are amongst the most remarkable on record. In a case of Asiatic cholera treated by the late Mr. Henry Ancell, Dr. Rose Cormack, and myself, a woman of middle age sank, in the collapse, into complete insensibility. In this state we injected through a vein in the arm two pints of a saline solution, after Stevens' original plan, with the astounding effect that our patient became quite conscious, sat up in bed, dictated a short will, and signed it in proper form. We left the house, thinking that recovery might follow, giving directions for the steady administration of a mixture of creasote and compound tincture of camphor, a mixture which had been in my hands successful in restraining the choleraic flux. But an hour later Mr. Ancell was back to me requesting me to return with him to the patient's house. The purging had returned, and the collapse was as serious as before. Once more we injected the saline solution, with the same phenomena of resuscitation. I suggested this time that the injecting tube should be left tied in the vein, that the syringe at the other end of the elastic connecting tube should be filled with saline solution and placed in a hand-basin of water kept at blood heat, and that the injection should be gently repeated so soon as any symptom of collapse should reappear. This was acted upon, and for many hours the current of injection was kept up. We observed under this line of treatment, which was identical with that to which Mr. Heatherly adverts, this very curious practical fact, that there was never any rallying at all from the injection so long as the current of saline solution was continued as a gentle feeding current. But when we pushed in the solution freely so that the vessels were brought by the pressure into tension, then the signs of reanimation returned. They returned with decreasing activity no less than six times, but they were always succeeded by the choleraic discharge and with spasm of the lower limbs, so that ultimately death closed the scene about thirteen hours after the first injection.

Bearing on the subject of saline injections and transfusion of blood, I made at one time a large number of observations. From the fact that the harpooned whale may sometimes live for long periods after profuse loss of blood, owing to the introduction of the saline sea-water into its circulation, I thought it possible that an injection of a saline solution might be effective in sustaining life after loss of blood; and more than once I witnessed in the lower animals apparent reanimation from what seemed actual death. But this only occurs when there is still some remaining circulation, and when some blood is left in the veins with which the saline substances can admix. From this I drew the conclusion that the saline did its useful work, not by any sustaining power of its own, but by its action in mixing with and forcing blood still in the vessels onward in its course. I tried thereupon to produce an artificial saline fluid, like blood itself, that would convey the proper elements and would oxidise in the pulmonary circuit. In this direction I made one good advance. I discovered that if fresh venous blood were added to a saline solution sufficiently charged with proper saline substance to sustain the even fluidity of the blood, such solution, warmed up to natural blood heat, was the best of all injections for restoring the phenomena of life. In the course of my Croonian lecture to the Royal Society I suggested that blood added to a saline solution might be dried down so as to be kept, in sealed bottles, ready for use in transfusion; but I believe now it would be most practical to add freshly drawn venous blood to the saline solution at the time it was wanted. A saline solution, consisting of thirty grains of chloride of sodium and fifteen grains of phosphate of soda in a pint of distilled water, takes up and

holds in even solution at blood temperature ten fluid ounces of fresh venous blood, if the blood, as it flows from the vein, be caught in the solution whilst cold and be gently stirred into it with a clean glass rod. This, I conceive, would be the best of all fluids for venous transfusion in the collapse of cholera and hæmorrhage, in both of which emptiness of the circulatory cavities is the cause of the collapse. In extreme chloroform or methylene collapse, where no blood is lost, a portion of the saline solution alone, with the addition to it of five minims of strong solution of ammonia or a fluid drachm of the aromatic spirit of ammonia to twenty fluid ounces of it, would be a good venous injection in conjunction with artificial respiration. For injection purposes the automatic syringe,[1] which I exhibited at the Medical Society of London last session, fulfils every intention. It prevents admission of air into the vein, and in working it the operator has simply to move the piston up and down in order to fill the barrel from the source of supply by the up stroke, and propel the charge onward, by the down stroke, into the circulation.

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ICHTHYOL: A CONTRIBUTION TO ITS THERAPEUTICS.

BY T. CRANSTOUN CHARLES, M D.

ICHTHYOL is obtained by the dry distillation of a bituminous quartz found in the Tyrol, which contains fossil fish-remains in great abundance. The oily substance thus prepared yields on rectification a colourless green fluorescent body containing about 2½ per cent. of sulphur, which when treated with concentrated sulphuric acid yields in turn a new product containing 18 per cent. of this element. Combinations with one or other of the caustic alkalies can readily be formed, also with zinc, lead, and mercury. The sodium sulpho-ichthyolate has the composition $C_{28}H_{26}S_3Ns_2O_9$. The ammonium salt, however, is the more common combination, and goes by the name of "ichthyol." It is a thick, fluid, fatty-looking body, with a colour varying from a dark-yellow or reddish-brown to a brownish-black, and possessing a marked bituminous smell and taste. With oils, vaseline, lanoline, and vinolia, it is readily miscible, and is slightly soluble in ether, water, and alcohol, but easily soluble in chloroform or in a mixture of ether and alcohol. Its large proportion of sulphur and its ready solubility are points in its favour, to which also should be added that it is not readily decomposed. The contained sulphur is present, partly in direct combination with the carbon, like the sulphur in mercaptan or organic sulphides, and to this its therapeutic action is probably due; while the rest of the sulphur group is in close combination with the oxygen, and renders the whole soluble in water, and readily absorbable. The large proportion of combined sulphur present in all these compounds enables us by their continuous use to introduce into the system a larger quantity of sulphur than by any other means. Ointments can be made with ichthyol and lanoline, zinc ointment, glycerine, &c., varying in strength from 5 to 50 per cent., the stronger forms for use chiefly in gout, rheumatism, and neuralgias. For a regenerative action one of the dilute ointments is to be recommended, but for a resolvent action one of the stronger. The ammonium and lithium salts may likewise be given internally in pills containing one grain and a half of the lithium salt, or in capsules containing 3·8 grains; also in the form of an alcoholic ethereal solution containing from 10 to 30 per cent. of ichthyol; and an ichthyol soap can also often be used with great advantage. Ichthyol may be given internally up to fifteen grains daily without producing any bad effect, without even producing any disturbance of the stomach, but it is advisable to begin with small doses, and gradually to increase them. Experiments on animals have proved its use to be quite harmless, for in daily doses of 300 grains it only causes diarrhœa. Ichthyol, being very oxidisable, draws oxygen away from the tissues, so that it is a reducing agent; and at the same time it produces an invigorating and antiseptic influence throughout the body and an astringent effect on the vessels, for which reason it can be used with advantage in many diseases in which there is dilatation of the capillaries. To disguise its strong and peculiar smell cumarin can be added, while its taste may be disguised by vanillin. In two cases which were accurately observed by me as to weight, urine, &c., an increase in the weight was noted, together with an improvement of the general health, under administration of ichthyol; and I have reason for agreeing with Dr. Zuelzer of Berlin that by its use the disintegration of the albumens in the system is retarded, and their formation and accumulation favoured.

I shall now give as short a summary as possible of the results I have obtained with patients, and at the same time take the opportunity of expressing my gratitude to the numerous medical friends who were so good as to send me so many cases, to three of whom in particular my especial acknowledgments are due. My experience with the ichthyol compounds extends over three years, and owing to circumstances it has been of a somewhat varied nature. My attention was first directed to it by the very interesting, able, and instructive papers of Dr. Unna of Hamburg. At the time, I confess, I was rather sceptical as to a body which was said to be useful in so many different ailments; but I soon convinced myself as to the very great advantages attending its use.

1. *Burns.*—(*a*) R. S——, a child aged seven; scald of the right arm, extending from the middle of the arm to the finger-tips. (*b*) W. M——, a young lady aged nineteen; a severe scald of the right foot and ankle; considerable swelling, with vesication. (*c*) Self; burn (first degree) of the right hand and wrist, the result of a laboratory explosion; pain very sharp. After the application of the ointment the smarting rapidly disappeared, a sort of anæsthetic effect being produced. (*d*) W. W——, a gentleman aged forty-five, who, when going to bed in a state of partial intoxication, set fire to his night-shirt, and sustained a burn of the second degree, extending from the middle of the thighs upwards to the level of the umbilicus. There was great prostration and very severe pain, but rapid relief was afforded by the ichthyol ointment. The ointment employed in the above cases varied in strength from 2 to 10 per cent. of the ichthyol combined with lanoline. In every case where possible the skin was well washed with hot water and soap before every application of the ichthyol, as otherwise small pustules or vesicles of considerable size sometimes tended to show themselves.

Even in the cases of those who are exposed to great heat, such as engine-drivers, blacksmiths, foundry *employés*, and stokers, I can confirm Unna's statement as to the great advantages that follow the application of the ointment to the face.

2. *Erythemata*—(*a*) L. G——, lady cook, aged thirty-six, much troubled with the frequent appearance of erythematous patches on the face. The ichthyol dextrin paste recommended by Unna rapidly proved effectual in removing them and in preventing their reappearance. (*b*) M. M——, girl aged seventeen, dressmaker. An erythematous eruption on the left side of the face and neck of old standing, and causing much disfigurement. A course of ichthyol extending over six weeks completely cured her. (*c*) C. W——, an anæmic, hysterical girl aged nineteen, subject for the last four or five years to frequent attacks of a rosy rash on the face, accompanied with acne; digestion very feeble and impaired; constant headaches. Rapid improvement from the first under ichthyol internally and externally, ichthyol soap and hot water, and iron tonics with strychnine. (*d*) In several cases, both in children and adults, of severe *chilblains* rapid cures were effected by frequent washing of the affected parts with hot water and ichthyol soap, and the subsequent application of ammonium sulpho-ichthyolate and ol. terebinth., equal parts; of ammon. sulpho-ichthyolate and glycerine, equal parts (or of ammon. sulpho-ichthyolate, three parts); aq. destil., glycerine, dextrin, of each 10 parts; mixed at a gentle heat. The affected skin was kept well wrapped up in cotton-wool. (*e*) *Intertrigo passing into an eczema.*—L. E——, aged fifty, very stout. Axillæ and lower borders of both mammæ moist, red, and tender; fever. L. E——, child aged three. No syphilitic history; nates red, tender, and painful. In both cases the treatment adopted in *d* proved rapidly successful.

3. *Herpes Zoster.*—(*a*) M. M——, aged seventy-two, a very painful and extensive eruption on the left side, corresponding to the distribution of the fifth to the twelfth dorsal nerves; sleep very disturbed. Rapid relief after the use of ichthyol internally and externally. (*b*) Clerk, aged forty-seven; never very strong, subject to indigestion and frequent attacks of asthma. An eruption on both sides, on a

[1] Manufactured by Krohne and Sesemann.

level with the ninth to the twelfth dorsal and first lumbar nerves, but lower and more extensive on the left side, and not meeting anteriorly. The same treatment as in the previous case was quickly successful in driving away the pain, and apparently shortening the attack.

4. *Eczema.*—As stated previously, ichthyol preparations are specially useful in diseases that are associated with hyperæmia, as it not only limits the spread of inflammation, but likewise tends to prevent vesication. Accordingly in eczema very successful results were to be expected from it, and in the eleven cases in which I had an opportunity of applying it I was quite satisfied, except in one patient, with the cures obtained. (*a*) *Infants' teething:* three cases with large eczematous patches on the face. The use of ichthyol rapidly relieved the itching, and soon caused the weeping to cease. (*b*) D. C——, married, aged forty-three; apposed surfaces of the thighs, but chiefly the left, the labia majora, and the hips abraded, red, and moist; considerable thickening of the skin, particularly on the left side. In this and the following two cases the treatment consisted in washing once a week with ichthyol soap and hot water, the use of ichthyol internally in pills and externally in the form of ointment, and the occasional application of the following weak sublimate solution: mercuric chloride, 0·5 part; oxide of zinc, 10 parts; mucilage of gum Arabic and glycerine, equal parts, 5; rose-water, 200 parts. (*c*) J. W——, drayman, aged thirty-five. Eczematous eruption of penis, scrotum, and adjoining parts of the thighs; very severe itching, some excoriations, but not much discharge. (*d*) W. L——, merchant, aged forty-two, intemperate. Eruption around anus, and extending over the nates generally; a series of painful fissures, one in particular posteriorly, great itching, abundant bad-smelling discharge. Was slowly relieved by the ichthyol applications, but the patient was lost sight of before a cure was effected. (*e*) In the five remaining cases, which varied as to extent, severity, and chronicity, the ichthyol treatment indicated above soon dried up the weeping surfaces, rapidly caused vesicles and pustules to disappear, and patches that were hard and infiltrated in a short time became paler and softer, while the itching was always rapidly relieved.

5. *Acne.*—(*a*) A. M——, lady's maid aged twenty-four. Face, particularly about the nose and chin, covered with acne punctata; also an abundant eruption of a similar nature on the upper part of the back. Had been taking calcium sulphide for some time without effect. Thorough washing with very hot water and ichthyol soap night and morning and the application of ichthyol ointment caused the enlarged follicles gradually to disappear, the suppurating points also being occasionally opened and gently scraped. (*b*) In three cases of *acne rosacea*, or *gutta rosea*, which, although really the result of frequently occurring erythema, is here considered, and in which ichthyol was employed, a cure was effected in two of the cases; but in the third, that of an old gentleman, little or no beneficial result having showed itself after the treatment had lasted for a fortnight, the patient did not return again. In one of the cured cases, that of a lady aged fifty-two, the treatment lasted for twelve weeks, and in the other for nine weeks, and consisted chiefly in frequent washing of the affected parts (chiefly the nose) with very hot water and ichthyol soap, the alternate application of a 20 per cent. ichthyol ointment and of a 20 per cent. solution; very careful regulation of the diet and bowels; and the internal administration of the capsules. Salicylated cotton wool was kept applied as much as possible.

6. *Sycosis Menti.*—B. B——, aged thirty-nine, a saddler, had been treated in various ways for six months previously to coming under my care. For two weeks the ichthyol ointment (20 per cent.) and frequent washing with hot water and ichthyol soap were employed without much benefit; then partial epilation, which the patient had at first opposed, was had recourse to, and this ointment applied: ichthyol, 1; vinolia soap, 2; oil of cade, 2. A partial mask was also from time to time applied of cotton-wool partially soaked in a 10 per cent. hot ichthyol solution, after every removal of which a little 30 per cent. alcoholic ethereal solution of ichthyol was well brushed into the affected parts, and the ointment then well rubbed in and kept applied. The cure was complete after a few weeks.

7. *Psoriasis.*—(*a*) In two cases where the patches were scattered (*guttata*) and not very extensive rapid cures were effected with the external application of the ointment. (*b*) In one case, in a woman aged forty-five, the eruption (*gyratæ*) involved both knees, and quickly disappeared under the ichthyol treatment. (*c*) J. K——, aged forty-seven, hereditary psoriasis, a general eruption (*universalis*) involving the whole of the trunk anteriorly, also the arms and legs; appeared eight years previously, diminishing in amount and severity from time to time, but never disappearing completely. Under the ichthyol treatment a slight improvement was effected; but as the patient wished a change chrysarobin was applied, first as an ointment, and afterwards in the pigment recommended by Auspitz: chrysarobin, 1; dissolved in chloroform, 8; and gutta-percha, 1 added. The eruption rapidly disappeared, but returned again, though not so extensively, after seven months had elapsed. The patient's general health, however, appears to be better when he has the eruption than when it is absent. (*d*) R. L——, aged fifty-two, landed proprietor and retired officer; severe attack of syphilis at the age of thirty-one; general health good. Thick, dry, scaly eruption over the front of both thighs, but extending also downwards along the outer side of the left leg. After the affected parts had been well poulticed, scraped, and washed, chrysarobin was applied daily for a fortnight, and arsenic taken internally, without much benefit showing itself; then ichthyol pills were given instead of the arsenic, and ichthyol applied externally, the affected parts being daily well washed, and every night the limbs bandaged in cotton-wool soaked in a 20 per cent. solution of the ichthyol, and during the day covered with the ointment (30 per cent. with lanoline). A little mercuric iodide was given at the same time. In ten days the eruption had entirely disappeared, and has not returned since (nine months).

8. *Pityriasis Capitis.*—J. H——, aged forty-seven, bank clerk. For the last ten years has suffered from a dry scaly eruption of the scalp, which has been growing worse, the quantity of scales thrown off being enormous, and the itching almost unendurable. Had taken arsenic for eleven months, and had applied carbonate of potash lotions and ammoniated mercury ointment, but the eruption was only slightly improved. He was put on the ichthyol treatment by me at once, the head shaved, thoroughly washed, and soaked for twelve hours in the weak sublimate solution referred to above; then a 30 per cent. ichthyol ointment applied for the next twelve hours, followed in the ensuing twelve hours by the application of the 30 per cent. alcoholic ether solution of ichthyol, ichthyol capsules being regularly given at the same time. This treatment was carefully pursued for four weeks, the application of the sublimate solution, however, ceasing after the first week, the ichthyol ointment and solution being alternately employed for the second and third weeks, and the ointment alone for the last week. The cure was complete at the end of this time (April 15th, 1890), and since then there has been no return of the disease; the hair also is well grown.

9. *Prurigo Senilis.*—Widow, aged sixty-nine. Very chronic and troublesome prurigo, preventing sleep; front of abdomen and thighs chiefly affected; patches of eczema superadded. Pilocarpin hydrochlorate (one-third of a grain) was subcutaneously injected for three nights in succession, then every second night for the succeeding week; and a 30 per cent. watery emulsion of ichthyol kept applied. Ichthyol capsules daily. Complete relief after eleven days. Somewhat similar treatment was also most successful in the case of a man, H. H——, aged forty-nine, who suffered from severe pruritus ani.

10. *Boils and Carbuncles.*—(*a*) In three young men with boils I found the ichthyol treatment most rapidly effectual; and (*b*) in the case of a lady who had suffered much from an open sore on the back of the neck left after the treatment of a carbuncle by the subcutaneous injection of a saturated ethereal solution of iodoform, and in whom another carbuncle showed itself later at a lower level in the back, the ichthyol treatment likewise proved most satisfactory. (*c*) Two cases of diabetes. M. L——, aged thirty-nine, and W. H——, aged fifty-three, were attacked with carbuncles. These were successfully treated with ichthyol internally and externally; but it was noticed that in each case the quantity of urine discharged, as also the amount of sugar present, were greatly lessened. Specific gravity reduced after ten days in the one from 1040 (sugar 7 per cent.) to 1015 (sugar 0·6 per cent.), and in the other after twelve days from 1039 (sugar 8·2 per cent.) to 1018 (sugar 0·8 per cent.).

11. *Erysipelas.*—(*a*) M. M——, aged thirty. Temperature 104°; pulse 115, soft and dicrotous. Great swelling of face

and sore-throat. A brisk purgative was first given; then the red surface was well washed with ichthyol soap and hot water, and next covered for three hours with lint soaked in sublimate solution, after which the inflamed surface, and for some way around it, was smeared with equal parts of ichthyol and lanoline, and enveloped in salicylated cotton-wool. Recovery after four days (*b*) T. L——, aged thirty. This case was somewhat similar to the last, but the eruption was chiefly confined to the upper half of the face and the front of the scalp. The swelling was very considerable, and the temperature 102°. Under similar treatment, ichthyol capsules also being given, and the ointment consisting of ichthyol 30, olive oil 20, and lanoline 50, the patient was well in four days. In these cases the ichthyol seemed both to limit the inflammation and cause its rapid disappearance.

12. *Rheumatism.*—For chronic rheumatic pains, particularly in the muscles, the rapid relief obtained by thorough inunction with the ichthyol ointment was most marked. Occasionally small pustules would make their appearance, but this I found not to be a bad indication, for the cure continued to progress under the employment of a weaker ointment or solution. (*a*) In five cases of chronic rheumatic pains of joints and muscles, mostly in old retired officers, friction with a 50 per cent. ointment greatly relieved the pains and shortened the attacks. The painful spots were always well washed with hot water and soap, then thoroughly rubbed with the pure ammonic sulpho-ichthyolate, or equal parts of this and lanoline, and covered up with cotton-wool. This was done twice daily. (*b*) In only two cases of acute rheumatism have I had an opportunity of trying it. J. K ——, aged thirty-three; third attack; double mitral murmur; profuse sour-smelling perspiration. Temperature 103·4°; pulse 120. Thickly furred tongue; right knee and left ankle very painful and swollen. Has been taking sodic salicylate (20 grain doses) at intervals for the last ten days, but fresh articular attacks continue to manifest themselves. Refused to take any more salicylate. Prescribed lemon juice in plenty of hot water; ichthyol capsules three times daily; and ichthyol (30 per cent.) dissolved in alcohol and ether to be applied to the inflamed joints, which were then covered with cotton-wool and oiled silk. The patient recovered rapidly.

In the case of a young man (W. S——) who came under my care in the subsequent week, aged nineteen (second attack, but heart normal; temperature 102·8°; pulse 115), the ichthyol (30 per cent.) lanoline ointment was applied to the swollen and acutely inflamed right knee. The pain soon ceased, and the inflammation diminished rapidly.

13. *Gout.*—(*a*) In three cases of gouty swelling of the joints of the hands, the application of ichthyol and vaseline proved most beneficial. In one of them, repeated applications, three or four times daily, of a 5 per cent. hot watery solution, were used with advantage. (*b*) J. H——, aged seventy-two, retired general, subject to frequently recurring gouty attacks, and suffering greatly from indigestion with extreme flatulence. Previous attack, five months ago, lasted three weeks. For the first week the painful joints were covered with ichthyol (20), ether and glycerine, equal parts (10), and invested in cotton-wool; and for the subsequent eight days painted with ichthyol and ether, of each 10 parts, and of collodion 20 parts. Terebene and colchicum were also prescribed. Rapid recovery.

14. *Neuralgias.*—In several cases of migraine and in neuralgias of different branches of the fifth nerve, the alcoholic ethereal 30 per cent. solution applied to the painful points three times a day, after they had been well washed in hot water, proved most successful. In a case of sciatica of long standing the ichthyol treatment failed entirely; but in the case of a young lady, aged twenty-five, who was suffering very severely from sciatica in the left side, the application of hot water followed by the alcoholic ether solution (30 per cent.) soon gave relief.

15. *Contusions.*—Two boys, who had fallen from a window and sustained severe contusions of the face and shoulders, were treated most successfully by the application, twice daily, of the 30 per cent. alcoholic ethereal solution. The pain disappeared very rapidly, and soon afterwards the swelling.

16. *Catarrhs.*—In catarrhal affections of the nose, stomach, and bladder, the ichthyol capsules and pills internally, and the application of watery solutions and ointments with lanoline were most effectual. In one of the cases of catarrh of the stomach, a very troublesome one, washing out the viscus was combined with the use of the ichthyol. A case of chronic nephritis, in a male aged forty-five, with albuminuria and casts, had been under my care for some weeks, when suddenly he was attacked with catarrh of the nose and upper respiratory passages, as well as of the stomach. Ichthyol sprays and pills were tried with advantage, as the patient's general condition greatly improved; but it was noted at the same time that the kidney symptoms also showed signs of amelioration. The ichthyol was therefore continued for the ensuing eight weeks, when the albumen was found to have diminished to one-quarter what it had been, the casts to decrease in number, the specific gravity of the urine to rise, and the dropsy to disappear. The patient was then put on a milk diet and about fifteen grains daily of the ichthyol administered, and he continued to improve. He is still under treatment, and his improvement is of the most marked character. How much of this is due to the ichthyol of course I cannot say; but in several cases of albuminuria without any recognisable kidney disease I have repeatedly succeeded by its means in diminishing, and in two cases apparently in causing the albumen entirely to disappear.

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NOTES ON THREE CASES OF PULSATING EMPYEMA.

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THE three following cases of pulsating empyema were admitted into the medical wards of the Leeds General Infirmary under the care of Dr. Eddison, senior physician, and presented certain points of extreme interest.

CASE I.—W. B——, aged four, was admitted on May 27th, 1890, with a swelling on the left side of the chest. His family history was good, and he is stated to have always been a robust child, never having had any previous illness. His present illness commenced with whooping-cough in January, 1890, and had the characteristic cough with vomiting, which lasted until March. He was then suffering from a troublesome cough, with expectoration and shortness of breath. In April he complained of pain in the left side, and cried out when lifted up or moved about. The parents noticed that he had a very poor appetite, and was losing flesh. Early in May they detected a bulging outwards of the left side of the chest, and that it seemed larger than the right side. About the second week in May—a fortnight before admission—the mother noticed a localised swelling on the left side between the ribs, which soon became red and rather glazed. He seems to have been more fretful, and complained of pain at this time more than previously. The swelling increasing, he was brought to the infirmary. On admission the child was pale and somewhat wasted, breathing rapidly, 56; pulse 140. Temperature 100·2° in right axilla, but 100·9° in the left. He was distressed and anxious in appearance, and cried when approached. The chest was large and barrel-shaped, with obvious bulging on the left side. Measurement: Right side, 11¼ in.; left, 12⅜ in. at a level of one inch below the nipples. There were two distinct localised swellings on the left side: an anterior one, the most marked, was situated over the fifth, sixth, and seventh ribs and spaces between the nipple and mid-axillary lines; the posterior one—less prominent—was over the eighth, ninth, and tenth ribs and spaces in a line with the angle of the scapula. There was a pulsation in both these swellings synchronous with the cardiac impulse and systolic in time; in the anterior swelling it might be seen, felt, and heard under any condition, but in the posterior swelling it was only apparent when the child lay on his right side. The skin over the swellings was rather thin, red, and glazed. The depressions corresponding to the intercostal spaces were absent on the left side, and the subcutaneous veins were considerably dilated. On percussion there was absolute dulness over the left lung from apex to base; no Skodaic resonance. On auscultation, the breath sounds were absent at the base, and very faintly heard over the upper part of the lung; vocal resonance and fremitus absent. Right lung normal. Heart was pushed over to the right of middle line of sternum.

The apex could not be located, and probably lay behind the sternum. The cardiac impulse was easily felt in the right intercostal spaces, and the sounds best heard to right of sternum. On May 28th, 1890, pleurotomy was performed under chloroform, the incision being made in the seventh space in the post-axillary line; thirty ounces of pus were evacuated, a drainage-tube inserted, and the wound dressed antiseptically. The temperature fell to subnormal the day following the operation, and the patient improved daily; appetite returned, and he gained weight. He got up on the seventeenth day after the operation. On Aug. 2nd the tube was left out and a simple dressing applied, and on the 6th the wound was healed up, leaving no fistula. The left side had fallen in slightly, and there was some curving of the spine; breath sounds could be heard all over the left side, but weak at base; no adventitious sounds. On Oct. 9th, 1890, he came to the infirmary, and on measuring his chest both sides were found to be equal, and no spinal curvature could be detected. The breath sounds were heard well all over the left side, and the child seemed in perfect health.

CASE 2.—M. S——, aged three years, was admitted on Aug. 8th, 1890, with a left-sided empyema. The father stated that the child had always enjoyed good health previously, but that his wife died a short time ago of consumption. The present illness began about five weeks ago, with cough, shortness of breath, and occasional vomiting, said to have had "pneumonia of left lung." The child was also feverish, with flushed cheeks, these symptoms continuing for the first three weeks. For the last two weeks had lost flesh, and become weaker, with troublesome cough. Had not noticed any swelling in the side, but that the child had lost her appetite, taking only a little milk and beef-tea, and was very sleepless at night. No exploration of chest made outside. On admission, the skin was of waxy colour; hectic flush on left cheek; tongue clean and moist. Temperature 100·6°; pulse 152; respiration 36. Enlarged and full veins of neck. On measurement, the right side was ten inches and a half and the left eleven inches at level of nipple; below this there was an inch difference. Left side motionless, and presented two distinct swellings—an anterior one, a bulging over præcordium, and the other over the eighth interspace in mid-axillary line, which was red, glazed, and fluctuating. This latter swelling pulsated visibly, synchronous with the cardiac impulse, and systolic in time; it could also be felt and heard distinctly. Much œdema of chest wall. All the signs of fluid in left pleural cavity; right side natural. Heart displaced entirely to right of middle line of sternum. Apex seems under the right nipple, and impulse felt there, as though rotated on its axis; cardiac sounds loudest heard in the same place. Urine, sp. gr. 1025, acid, clear, no albumen. On Aug. 8th, 1890, patient was anæsthetised. The pulsations of the swelling in the left side were seen by all in the theatre more plainly than before. An exploring needle was introduced into the tenth space, and pus withdrawn. Pleurotomy was performed, the incision being made in the same interspace, and twenty-five or more ounces of sweet pus evacuated slowly. On introducing the finger through the wound into the pleural cavity compressed lung covered with pyogenic membrane could be felt, through which was transmitted to the finger the cardiac impulse. The cavity was a large one. A drainage-tube was inserted, and the wound dressed antiseptically. The temperature fell to normal the day following the operation, and remained so for the next three days, when it began to rise again. Persistent vomiting set in, the pulse became more rapid, and also the respiration; bowels opened two or three times a day. The child became weaker, and died on Aug. 21st.

Necropsy.—Brain and membranes healthy. On opening the thorax and removing the sternum the heart appeared to be in the normal situation, and the right lung expanded, but the left lung was only just visible, small and collapsed, and lay against the mediastinum. The rest of the pleural cavity was a large empty space. No pus was visible. The pleura was thickened slightly and covered over with a thin pyogenic membrane, firmly adherent to the pericardium, which was also thickened. The left lung was small, collapsed, and solid, and weighed about six ounces and a half. On section it showed white fibrous bands running throughout the substance, and from the pleura contained no air or any trace of tubercle. It sank in water. Right lung healthy; no sign of tubercle. Right pleura filmed over with recent lymph, and pleural cavity contained about two ounces of purulent fluid. The rest of the viscera were healthy. No iodine reaction, but peritoneum showed signs of recent inflammation, being covered over in parts with lymph, and containing four ounces of purulent fluid in the peritoneal cavity. Intestines adherent together, but very easily separable; not hyper-distended. No evidence of any communication between the empyema of the left side of the chest and peritoneal cavity.

CASE 3.—W. J——, aged twenty, a moulder by trade, was admitted into the infirmary on Aug. 11th, 1890, complaining of weakness and shortness of breath. The patient had always enjoyed good health previously, and there was no history of phthisis. His present illness began thirteen weeks ago with much lassitude and loss of appetite, but he had no shivering fits. He consulted a medical man, and was told he was suffering from pleurisy; at the end of the fourth week of his illness his left pleural cavity was aspirated, and "much fluid, turning to matter," was drawn off. He was confined to bed for four weeks, after which he got up and went about. About a fortnight ago his chest began to fill again, his breathing becoming much shorter, with pain in his chest. On admission the patient was sallow and the tongue moist, but furred; occasionally he had a short cough, with some frothy expectoration. The alæ nasi dilated on inspiration, and he had considerable dyspnœa. Temperature 100°; pulse 129, weak; respiration 38, shallow. The veins of the neck were dilated. The left side of the chest was cylindrical in shape, walls œdematous, with dilated veins, practically no expansion. In measurement it was one inch more than the right side. Over the fourth and fifth ribs and interspaces on the left side, about one inch internal to the nipple, was a distinct fullness; the skin was thin, glossy, and fluctuating, and pulsations, synchronous with the cardiac impulse and systolic in time, could be plainly seen over it, as also felt. All the signs of fluid in left pleural cavity. Heart displaced to right of middle line of sternum, cardiac dulness on right side, and the impulse felt in the fourth right interspaces beneath the nipple; right side natural. Urine, sp. gr. 1020, acid, no albumen. On the 12th the patient was anæsthetised, and pleurotomy was performed; the incision was made in the eighth space in the post-axillary line, and the pus evacuated slowly, amounting to eighty ounces, quite sweet. On introducing the finger through the wound, all one could make out was a large cavity. Patient died soon after the operation.

Necropsy.—On reflecting the skin and pectoral muscles from the left side of the chest, the external tumours were found to contain pus and having fistulous communications, which united them to the principal cavity. The heart was displaced to right of middle line of sternum, and twisted slightly on its axis, the apex corresponding to the fourth right interspace; the pericardium was distended, and contained eight ounces of clear, yellow, serous fluid; the left surface was intimately adherent to the left pleura, and could not be separated from it without tearing. The left pleura was thickened and covered with a pyogenic membrane. The left lung was not visible on opening the thorax; the pleural cavity was one large empty space; the lung was compressed and collapsed, and lay against the mediastinum and vertebral column, no larger than one's hand; no evidence of tubercle. The right lung was œdematous, but otherwise healthy; no tubercle anywhere; all the other viscera were healthy, and gave no reaction to iodine.

Remarks.—Although but few cases of pulsating empyemata have been reported,[1] they are not in all probability so rare as generally imagined, because easily overlooked and not expected. Of the two recognised groups of cases into which pleuritis pulsans has been divided—(1) the intra-pleural pulsating pleurisy, and (2) the pulsating empyema necessitatis, in which there is an external pulsating tumour,—the three above examples fall under the latter heading, and present all the signs peculiar to it, which are as follows:—A localised subcutaneous swelling or swellings communicating with the pleural cavity, with systolic pulsations synchronous with the cardiac impulse, which may be well marked, energetic or weak, usually situated anteriorly between the sternum and axillary line, though found occasionally laterally or posteriorly; an extensive purulent effusion into the pleural cavity, nearly always left-sided. On palpating the swelling the systolic impulse is easily felt, sometimes more strongly than the cardiac, the pulsation also receding during inspiration and projecting during expiration. On auscultating at the level

[1] R. L. Macdonnell, M.D.: Dublin Jour. Med. Science, March, 1844. Kepler: Deutsches Archiv. für Klin. Med., Bd. xl., 1887.

of the pulsations one can hear both heart sounds distinctly. Excessive displacement of the heart and rotation on its axis. Such comprise the most salient features of an empyema necessitatis. Formerly it was occasionally confounded with aneurysm of the aorta, but from the mere facts of the disproportion between the feeble pulsations and the extensive dulness, an aneurysm producing such an extent of dulness would give rise to very different expansile pulsations; the displaced heart, absence of breath sounds and œdema of chest walls, together with our present knowledge of the subject, is sufficient to warrant disregard of the existence of such a difficulty. With regard to the necropsy of a case of empyema necessitatis, the following conditions are almost classical of this lesion, and many were found in both the above cases.[2] In place of the left lung is an immense cavity, with a pleura devoid of adhesions, and either containing pus or not. The left lung cannot be made out until the pleural cavity is emptied. The parietal pleura is not sensibly thickened, but covered with a layer of pyogenic membrane. The intercostal spaces are dilated and stretched in certain places, and at times one can find one or more ribs denuded and altered by the pus. The left lung lies against the mediastinum from apex to base, and adherent to the left lateral surface of the pericardium. The visceral pleura is thickened, and in many cases are found one or two perforations leading into the bronchi. It is impossible to detach the lung from the pericardium, the adhesions are solid, also behind to the vertebral column, and above to the upper ribs. There may or may not be tubercular lesion of the lung. The whole of the lung looks like a fleshy mass the size of the hand; the tissue may be merely compressed or hard, elastic, fibrous, completely impermeable to air, and apparently but slightly vascular. It is an interstitial pneumonia—a pulmonary sclerosis. The bronchi terminate in culs-de-sac towards the pulmonary surface. The right lung is often healthy. In spite of the heart being pushed over to the right, this organ does not present any other alteration; there may be some serous effusion in the pericardium, but this is accessory. The external tumours have fistulous communications with a sinus more or less long, which unites them to the principal cavity. Of these observed pulsations during life many explanations have been given, but none are without objections. For instance, Comby states that pulmonary sclerosis must always exist, in which case pulsating empyema is absolutely incurable, as such a lesion signifies complete destruction of the lung. One knows from experience that this is not the case, and that simple compression is all that is needed, although at times pulmonary sclerosis may exist. The production of pulsations necessitates a concourse of circumstances which are not commonly found in the same patient. The empyema represents a vast cavity, closed in all parts and full of fluid, which possesses a certain tension, compressing and displacing the heart to the right of the middle line of the sternum. The heart in contracting reacts against this compression which it is submitted to, pushing back more or less strongly that part of the pleura which corresponds to the ventricular mass, and which is adherent intimately to the pericardium. The pleural sac of a left-sided effusion is in connexion with the left ventricle, whereas a right-sided effusion would have its pleural sac more in connexion with the right auricle and base of the right ventricle; hence, perhaps, one of the causes of the greater frequency of left-sided pulsating empyemata. Again, certain conditions are necessary for their production: as, for instance, the heart must not be enfeebled by valvular lesions; the contractions should be energetic, and the impulse sufficiently extensive between the ventricular mass and wall of the pleural sac. The liquid effusion must possess a certain tension, and exercise a compression on the heart itself, for the evacuation of a certain quantity of fluid in diminishing the tension of the effusion weakens and even suppresses entirely these thoracic pulsations. Now, the empyema is limited externally by the thoracic wall, below by the diaphragm, and in the inside by the mediastinum and a variable extent of the surface of the lung, and the effect of transmitted pressure is to cause displacement of those parts offering least resistance, as the mediastinum, lung, and diaphragm; and in order that the impulse communicated to all the surface of empyema may become appreciable to the exterior, it is necessary that there should exist a point of less resistance. This condition would be apparent if the resistance is considerably augmented from the diaphragm, mediastinum, and lung, which become relatively superior to that of the soft parts of the intercostal spaces. This resistance can be increased in two ways—(1) where the effusion is very great, and the displacement of the mediastinum, lung, and diaphragm is at its maximum; (2) the presence of a thick, resisting, non-extensile, false membrane which lines the pleural sac. As to the lung, the resistance is in proportion to the completeness of the compression, and it need not necessarily be sclerosed or have lost all its property of re-expansion. One may add that the resistance of the thoracic wall may be relatively diminished by the slight development of false membrane on the parietal pleura, by the prolonged compression of the soft parts of the parietal pleura, by the prolonged compression of the soft parts of the intercostal space, and by the purulent softening of the parietal pleura itself. The walls of the external abscesses, which occupy the thoracic region, represent points of less resistance, and it is therefore on these points of least resistance that the stress of pressure is exclusively felt at each cardiac revolution, after transmission to the whole mass of fluid and internal surface of the pleural sac. Hence the appearance of these regions of pulsations more or less energetic and synchronous with the cardiac pulsations, conformably to the principle of Pascal, and, as in aneurysmal dilatations, the force with which the pulsating wall is raised is greater as the surface of the wall is more extensive. Thus the larger tumours of an empyema necessitatis pulsate with greater force than those of less dimension and simulate veritable aneurysmal dilatations.[3] The prognosis is generally graver than that of the more ordinary forms of empyema. It occurs more often in chronic cases, chronicity being always a serious element in the prognosis of empyema. But the presence of pulsations does not necessitate incurability, for total compression and sclerosis of the lung are not indispensable conditions for their production. That empyema necessitatis should become a very rare form of empyema considering our present knowledge and ready means of diagnosing the early presence of pus in the chest is both to be hoped and expected.

Leeds.

[2] J. Comby: Les Pleurésies Pulsatiles. Archives Générales de Médecine, vol. ii., Paris, 1883.

[3] Bouveret: Traité de l'Empyème, p. 581.

CHLORIDE OF AMMONIUM IN THE TREATMENT OF HEPATIC DISEASE.

BY SURGEON-GENERAL W. STEWART, M.D.

IN THE LANCET of Oct. 22nd, 1887, I gave an outline of the treatment of hepatic congestion by chloride of ammonium in all its essential particulars, referring the reader to my book[1] for further details as to the reason and necessity for the same. I also furnished a case in illustration of the efficacy of the drug, as well as of the characteristic and special symptoms following its administration in the more acute and favourable forms of hepatic disorder so common in India, particularly in the stations of the Madras Presidency, which, commencing in imperfect discharge of the liver functions, leads to congestion—simple enlargement of the liver. I mentioned how this stage or form of disease, if neglected, or only partially recovered from, was liable to terminate in inflammatory action, generally confined to a limited portion of the parenchyma, with marked tendency to suppuration. In Europeans, on first arrival in India, exalted hepatic function is excited by high atmospheric temperature, exposure to the sun, and other causes.

On this point Sir William Aitken truly remarks: "In India the period of exalted function is not found to be of long duration, but is confined to the earlier years of residence, declining from that time. The decline of the powers of the secretion and the arrest of the function always precedes the expression of inflammatory states, and is associated with congestions of an active kind, in which the arterial system becomes prominently excited." "In Bengal," according to Sir Ranald Martin, "fewer cases are met with acute symptoms than in Madras. Such cases will occur among

[1] Treatment of Hepatic Disease. London, Smith, Elder, and Co.

the young and those lately arrived from Europe, at least within a year or two after their arrival. The Indian hepatitis partakes more of inflammatory congestion; the acute hepatitis of Europe more of active inflammation, like that of the lungs, kidneys, &c."

According to Murchison, "a high temperature favours certain functional derangements of the liver, and particularly those relating to sanguification and disintegration of albumen. Experiment has shown that one of the effects of a high temperature upon the lower animals is to produce a degeneration of the parenchyma of the liver, its secretory cells being filled with minute granules and presenting the appearances found after death from febrile diseases."[2] It is possible, then, that some of the functional derangements which are generally found to precede and accompany the expression of the congestive or inflammatory state may be owing to similar degenerations, not necessarily permanent, of the secreting cells. This, too, may be the reason that in India there is no organ so prone as the liver to become the seat of suppuration, and that, too, often in a latent and insidious form, particularly when the abscess happens to be deep-seated.

On this subject Morehead[3] justly remarks: "The common type of disease in India, both in Europeans and natives, is asthenic. These features of asthenic disease often lead in India to neglect of application for relief till disorganisation of structure has well advanced, and they, moreover, sometimes tend to mislead the practitioner in respect of the stage, and this creates the erroneous impression that the morbid changes have been rapidly effected. It thus follows that bloodletting and all other depressing remedies should be used with greater caution in India than in colder climates." A large experience of tropical disease in Ceylon, Bengal, Madras, and Burmah has convinced me of the truth of the above observations, and of the necessity of bearing them carefully in mind whenever we have to do with a case of tropical hepatitis.[4] If, then, tropical hepatitis be met with in the first stage, or that of vascular turgescence, and the ammonium chloride be given early, with attention to all the rules laid down for the treatment of liver congestion, there is almost a certainty of the disease terminating in resolution. Even if lymph be effused in a limited portion or portions of the inflamed and congested organ, there is hope of complete recovery by resolution and absorption under the persistent use of the drug. But no matter how far the inflammation has advanced, the ammonium chloride is still the one special remedy for the specific disease. The occurrence of suppuration, therefore, is no reason for abandoning its use as is sometimes done, and as is recommended in some of the text-books. On the contrary, as the formation of pus is a consequence of, and is accompanied by, hepatic congestion, pain and tenderness, and more or less pyrexia of an irritative or hectic type, with tendency to dysentery, it best meets the indications of the disease, not only by its special action on the portal circulation, by which the liver is freed from congestion, its functions improved, and dysentery prevented; but by exerting a life-saving influence, when persistently administered, and in protracted cases, affording actual support to the system while the abscess is either being absorbed, or is discharged by operation, or makes its escape by one of the usual channels.[5] The case given in my former paper[6] was selected with a view of illustrating the method of treatment of the acute and more favourable forms of hepatic congestion and suppurative hepatitis, and as a typical illustration of the characteristic and special symptoms produced by the medicine in such cases.

In simple enlargement of the liver (congestion) and acute hepatitis, properly so-called, the characteristic and special action of the medicine on the liver and related parts is, if attention be paid to the rules laid down, most marked. But it would be unreasonable to look for the same speedy relief from pain and general improvement in every instance without reference to the stage of the disease in which the drug is administered, the temperament of the patient, the diathesis, or the existence of the various cachexiæ, as well as the complication of other diseases. Again, the action of the medicine is not so marked in cirrhosis or interstitial hepatitis, whether depending on the abuse of alcohol — a very common complication in India—or chronic hepatitis with enlargement, owing to repeated acute attacks, obstructive heart disease, or other causes. But even the congestive stage of cirrhosis I have found quite amenable to the treatment, provided that spirits and stimulants in every form are absolutely prohibited. In some cases where abscess has existed for some time previously to the commencement of treatment I have found from four to ten days are required before any marked improvement is observed under the persistent use of the medicine, during which time a feeling of comfort with free diaphoresis, with diuresis also, may be the only marked effects produced. But sooner or later, if the medicine be administered with strict attention to the rules for diet, nursing, and regimen, the previously lurid, sallow, or dusky and anxious countenance will give place to one clear, bright, and hopeful; the appetite and sleep will return with alleviation of all the distressing symptoms; the hectic fever, which may have been from time to time of a remittent or continued type, will at length yield; and the patient will regain flesh and colour after the slow and progressive emaciation from which he had previously suffered.

The perspiration induced by the medicine, unlike the colliquative sweating of the hectic in liver abscess, is not attended with depression, but, on the contrary, brings relief, and is probably one of the means through which it acts as a depurant. I have thought it necessary to enter into these particulars because I know that the free diaphoresis induced—and which is characteristic of hepatic disease—has led to its abandonment by some practitioners through fear that the exhaustion (the result of the disease going on unchecked) may have been occasioned by its action, and because no apparent benefit may have resulted for some days during its use. But there can be no greater mistake, as a perusal of the following case will show. It also illustrates some of the more striking special symptoms caused by the drug, as well as what I have said above as to its life-saving influence, when persistently administered, in protracted cases, affording support to the system while bringing about absorption of pus.

Case of deep-seated Abscess of the Liver treated with Chloride of Ammonium; Recovery. — J. L——, 21st Fusiliers, was admitted into hospital at Thayetmyo on Nov. 4th, 1871, complaining of feverish symptoms and weakness. The patient stated that for the past four months he had not "felt himself," and that on walking over rough ground or making a false step he felt a pain or stitch in his right side. For a week before admission his state became much worse, and he was very weak and low-spirited. For some time past he had had heavy night sweats, with febrile disturbance. The night before admission, being on guard, he experienced a severe shivering fit. For more than a week previous to admission he felt a dull, heavy pain in his right shoulder. On examination the patient was found to be suffering from pain in the hepatic region, which was increased on pressure or deep inspiration; also from sympathetic pain in the right shoulder. Hepatic tenderness was most marked on pressure at a point about two inches beneath the right costal margins, and two inches to the right of the mesial line of the body. Towards the posterior and lateral part of the chest, over the angles of the tenth and eleventh ribs, was another point where much tenderness was evinced on pressure. The area of hepatic dulness was normal. In addition to a short, dry cough which troubled him, his general symptoms were extreme weakness, pallor and anxiety of countenance, sleeplessness at night, and febrile disturbance. His body was bedewed with cold, clammy perspiration, the hands and arms especially so. Indeed, the patient seemed semi-collapsed. The tongue was clean, moist, and expanded. Pulse, 72 in the morning; 84 in the evening, oppressed and weak. Temperature: morning, 101·1°; evening, 104·2°. As the patient was perspiring very profusely, he was ordered only fifteen-grain doses of the chloride thrice daily. Hot bran applied to side. No solid food was allowed, but patient

[2] Clinical Lectures on Diseases of the Liver, third edition, edited by Dr. Lauder Brunton and Sir Joseph Fayrer.

[3] Researches on Diseases in India, 1856.

[4] Formerly, in acute cases of congestion, I was in the habit of applying four to six leeches to the right hypochondrium for the relief of pain. I soon found that this moderate amount of depletion was ill borne, and quite unnecessary under the action of the chloride of ammonium.

[5] In my early practice in India, before the introduction of the chloride of ammonium treatment, I found the use of the old trocar and cannula, or the more modern aspirator, for the evacuation of the pus more fatal than if the abscess were left to nature. Since then, however, free incisions with antiseptic precautions have been found successful in suitable cases, and there is no reason why they should not be so employed, when deemed necessary, in conjunction with the special treatment herein advocated. In not one of the twenty-four consecutive cases successfully treated by my method, in the hospitals under my charge, were operative measures considered necessary.

[6] THE LANCET, Oct. 22nd, 1887, p. 808.

was placed on light diet, with one pint of beef-tea, half a pint of milk, two pints of lemonade, and four ounces of port wine diluted with water, so as to last the twenty-four hours. An orderly was placed in attendance, and a bed-pan and urinal were supplied him, with instructions that the patient was to keep the recumbent position, and on no account to turn on his side or quit his bed. On the 8th it was reported the medicine acted characteristically in causing warmth at the epigastrium, followed by perspiration and relief of pain. The following was the account given by the patient of the special symptoms induced:—"About twenty minutes after taking the medicine yesterday, a 'pulling sensation' began at the point beneath the right false ribs in front, which was the seat of pain, then a sense of 'pulling and pricking,' 'pins and needles,' ran along the lower margins of right inferior costal cartilages for a distance of about four inches. The pricking ran backwards and forwards between the points above mentioned, and both sensations lasted for about a quarter of an hour. Afterwards the pain in side was much relieved and still continues easier than before." The sympathetic pain of the right shoulder, above the scapular end of the clavicle, still continued, and was increased by the patient turning on the left side. He could lie on his right side with ease, but his position was dorsal. Short dry cough, the result of pressure on the base of the right lung, continued. From 9 P.M. to 12 midnight he had profuse sweating, and his sleep was disturbed. Temperature: morning, 98·8°; evening, 103°. Pulse: morning, 70; evening, 88. Treatment, diet, and extras continued. On the 10th the pain in the side was almost gone, but the pain in the shoulder continued. The short dry cough was troublesome, recurring about every half hour. Night sweats occurred for the past three nights, lasting from 9 to 12 midnight. Temperature: morning, 98·6°; evening, 103·3°. Pulse: morning, 72; evening, 84. The treatment was continued. On the 11th he was much better, and could bear pretty firm pressure without pain at the points which were formerly so tender to the touch. The patient stated that yesterday, after a dose of the medicine, he observed a "quivering" in his side at the tender spot in front, which lasted about half a minute. It was noted that he perspired much during the day, from sunrise to sunset. Sleeps better at night; face slightly jaundiced. Temperature: morning, 98·9°; evening, 102·2°. Pulse: morning, 73; evening, 85. Treatment continued, and diet as from the first. On the 12th he was reported as looking better; colour returning to the countenance, which had lost its anxious look. There was no sweating during the previous night. The hands were cool and moist, but not clammy, and the cough, which was sympathetic and depending on upward pressure on the base of the right lung, was less frequent. Temperature: morning, 98·2°; evening, 100·7°. Pulse: morning, 81; evening, 71, small and jerking. The ammonium chloride, which still acted characteristically, was continued; the diet and extras as before, with some extra milk, but as yet no solid food. On the 13th the night sweating returned, and lasted most profusely for about an hour. The patient described the perspiration after each dose of the medicine as very different from that which came on at night. The former brought with it a feeling of comfort, followed by relief of pain and all unpleasant symptoms; the latter induced weakness, and was attended with discomfort. The pain was now entirely gone from the hepatic region. He could turn on the left side without much pain, but was cautioned not to do so. Temperature: evening, 101·8°. Treatment continued. On the 16th the temperature was normal, and the pulse was firmer and fuller. The pain had left the shoulder, and the patient could lie on the left side without pain. Night sweats ceased since the 13th. On the 18th the pain in the shoulder returned, which the patient attributed to having lain on the right side in his sleep. On the 28th the medicine ceased to produce characteristic action. Since last report the progress had been most favourable. The patient's appetite was now good; he slept well, and had rapidly regained colour, flesh, and strength. The chloride was now reduced to eight grains thrice daily, and the patient was permitted to sit up for an hour in the day. Diet and extras as before, with the addition of two eggs and an ounce of butter. On Dec. 5th he was allowed to take gentle exercise morning and evening, and from that time till Jan. 11th following he remained in hospital solely on account of debility; and on the latter date he was discharged to duty having thoroughly recovered his health.

The above case is given *in extenso* so as not only to illustrate the characteristic and special symptoms produced by the drug, but also the chief points to be attended to in regard to the auxiliary treatment, diet, and management, without attention to which success need not be looked for. In a future paper I hope, in addition to some recapitulatory remarks to touch on the surgical proceedings that may be advisable in certain forms and stages of hepatic trouble. I hope also to furnish further statistics of cases treated in the hospital under my charge during a second tour of service in India,—contrasting these with the records of cases previously treated in the same hospital, by different medical officers, so as to bring into relief the gradual and steady progress of cases treated strictly according to my method towards recovery, with the retrograde or unsatisfactory progress of cases not so treated, or in which the medicine was prescribed in a desultory manner—not persistently administered,—or in which no attention was paid to the rules for diet, strict rest in bed, the avoidance of all stimulants, except in case of extreme debility or threatened collapse. These and such questions as have been suggested by a perusal of the cases recorded by various medical officers at the Royal Artillery Hospital, Secunderabad, India, from 1871 to 1877, I must defer for another occasion. Before concluding, however, there is one point of the greatest importance to the Indian medical officer to which I must briefly refer, as without attention to it all his efforts may be nugatory, and a valuable means of cure may be rendered powerless and suffer unmerited disrepute. In the *Medical Press and Circular* for September, 1889, will be found an interesting paper on "Hepatitis and Hepatic Abscess," by Surgeon Harrison Younge, Medical Staff, who, in speaking of the value of the chloride of ammonium in these diseases, gives the following caution: "Care should be taken in the selection of the medicine, as a large amount of the chloride of ammonium supplied in India is quite inert." Now, in its purest form, in small crystals, the ammonium chloride is a very cheap drug. Let us hope, then, that this matter has been remedied long ago by those responsible for medical supplies in India. If it has not, now that public attention has been again called to it, no time should be lost in seeing that a pure supply of such an important therapeutic agent is at once procurable.

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SOME RECENT LITHOTOMIES WITH INFERENCES.

BY SURGEON H. HERBERT, I.M.S.

THE following cases occurred at Aden while I was acting civil surgeon there last year:—

CASE 1. *Supra-pubic Lithotomy; Ruptured Urethra; Calculus over ten ounces; Perineal Drainage; Death on tenth day from Suppurative Nephritis.*—An Arab Sultan, from thirty to thirty-five years old, emaciated and feeble. Symptoms of stone since childhood. Admitted Aug. 17th, 1890. Though the stone was so large, it was not till fluid had been injected that it was felt, the sound having passed up in front in a fold of mucous membrane. The urine was scanty, slightly alkaline, sp. gr. 1010, with much pus. Treated till 21st with boracic acid internally. Urine then neutral. Aug. 21st.—Operation: median incision. Not more than four ounces of fluid were injected into the bladder. The penis was then tied with a tape to prevent the escape of urine already taking place. Almost immediately afterwards extravasation took place into the penis, perineum, and scrotum. (Since this I have used the method described by Greig Smith[1] to avoid tying the penis.) A catheter was passed to empty the bladder of fluid, and a deep median incision made into the base of the perineal swelling with the intention of using it (since an incision had to be made) for drainage afterwards. But it necessarily wounded the bulb; and in spite of continuous direct pressure, the penis and perineum filled up again two or three times with blood. The stone was extracted with some difficulty, the vesical wall being firmly contracted on it. A soft catheter was run in from the perineum, and the patient supported on an inclined plane. Very little inflammation followed the extravasation. There was some tympanites with flatulence, and slight

[1] Greig Smith's Abdominal Surgery.

general tenderness of the abdomen for a few days. Stitches and drainage-tubes were removed from the supra-pubic wound on the fourth day; and the wound opening out, the base of its upper half consisted of little but peritoneum, rising and falling with contractions of underlying gut. The urine was very scanty for two days, but after this more plentiful, neutral, sp. gr. 1010, with pus. The temperature kept continuously high, with a slight rise during the first few days. Afterwards it fluctuated chiefly between 101° and 103° F. The pulse varied between 120 and 140. The perineal drainage was by no means perfect. The collapsed bladder wall had a tendency to lie over the end of the catheter and block it. Afterwards a female catheter with lateral openings was used with much better effect. On the fifth day an attempt was made to do without it, as the patient wanted a change of position. But the next morning the usual drop in temperature was absent, tongue drier and pain about the wound. So the catheter and inclined plane were resumed. Again, on the ninth day, the attempt was repeated from 4 P.M. From midnight onwards the man complained of pain about the wound, and next morning there was a temperature of 103·6°F., pulse 150, headache, tongue absolutely dry, scarcely any urine secreted, and pain about the wound. A drop of two degrees in temperature followed a return to the old conditions; but it was only temporary, and the patient died the same evening.

It seems that in the man's enfeebled condition from suppurating kidneys and loss of blood the imperfect granulation tissue formed in the wound was an insufficient barrier to the absorption of poisonous matter from the septic urine. The ill-effects of the change in treatment were most unmistakable, and form a strong argument in favour of perineal drainage in selected cases of supra-pubic cystotomies. This is avoided as entailing an unnecessary addition to the operation; whereas, with the finger in the prostatic urethra as a guide from above, it is one of the simplest of counter-openings, large enough only to admit the tube, and causing practically no loss of blood. It provides true drainage in contradistinction to the overflow from above. I have since used (in Case No. 2) a metal lithotomy tube with closely set large lateral openings for the terminal two inches of its length. With this kept clean by frequent washing, and aided by position on an inclined plane, scarcely a drop of urine can ever foul the abdominal wound. And in any case with offensive alkaline urine coming down from the pelvis of the kidneys the benefit of its immediate removal must be great, at least until a barrier of granulation tissue has formed. The few recorded cases where a catheter simply passed down the urethra and kept in has sufficed to drain away the whole of the urine must be regarded rather as lucky accidents, and not to be expected.

No post-mortem examination was obtained. The calculus consisted of oxalic, uric, and phosphatic layers. It is 3¼ in. long and 2$\frac{7}{16}$ in. broad, and weighed after drying 10 oz. 1 drm. It is interesting as an example of spontaneous fracture and solution. In front there is a lozenge-shaped depression, 1½ in. long and $\frac{1}{16}$ in. deep, and the sharp edge fragments from this have become welded on to the base of the stone. There is a small worm-eaten cavity in the phosphatic layer behind the opening on the surface, and another in the uric acid layers, filled with débris, and cut across by chance in the section. The large deficiency in front was probably caused mainly by concussion against the symphysis pubis. It was situated immediately behind this; its margins are sharply cut and regular, and its floor mainly smooth; and the patient had travelled a long distance in coming for treatment, jolting on a camel. But the existence of the small cavities suggests that a process of solution was the starting point or adjuvant of the fracture.

The following two are the only other cases with decomposing urine that I have had of the high operation in adults.

CASE 2. *Supra-pubic Lithotomy; Six Phosphatic Calculi; Perineal Drainage; Recovery.*—An Arab, between thirty-five and forty years old. After the incision through the abdominal walls had been made, the rest of the operation was done with incomplete anæsthesia, as the patient took the chloroform exceedingly badly. The bladder was firmly contracted, rectum empty, and the contractions of the recti muscles troublesome. The mass of calculi, phosphatic throughout, was large, and weighed just under four ounces when dried. The smaller ones were embedded in the prostate and neighbouring part of the trigone, so much so that one was not detected by the finger till the perineal opening was being made. No stitching except at the upper angle of the incision. In extracting the embedded calculi the mucous membrane was bruised and lacerated, and the pockets left were unfavourable for drainage, and the urine was very foul. Thus there was high fever for the first five days. The bladder was frequently washed out through the large perineal tube. Occasionally a few drops of pus and urine were found at the bottom of the supra-pubic wound. But a strip of muslin inserted kept it perfectly clean, and there is no doubt the immediate removal of the stinking urine and the prevention of its contact with the raw retro-pubic surface far counterbalanced any possible irritation from the presence of the tube in the bladder. It was left in till the fourteenth day, as the urine was still alkaline. It had then caused slight epididymitis in the right testicle. No disturbance followed its removal. The perineal opening closed very rapidly, the supra-pubic wound slowly. This was a more favourable case than the first, as there was no loss of blood from the perineal incision, and the urine before operation averaged about sixty ounces daily, with sp. gr. 1009.

CASE 3. *Supra-pubic Lithotomy; Death on eleventh day; Retro-pubic Suppuration.*—An Arab, from fifty to sixty years old. This case stands as a contrast to the last. It seemed so favourable that perineal drainage was not resorted to. The urine was alkaline, but averaged forty-four ounces daily, sp. gr. 1007. The stone weighed barely over one ounce, and was only imperfectly coated with phosphates. It was removed with great ease and without any bruising of the tissues. No stitching. The bladder was washed out every four hours, yet the wound became superficially sloughy, and remained so in the deeper parts. There was a little fever for the first six days. On the ninth the temperature kept below 98°, and on the morning of the tenth day the patient was collapsed, with a temperature of 95°. After this it did not rise higher than 97°. Hiccough persisted all the next day (eleventh), and the man died at 8 P.M. At the necropsy there was found a collection of pus in front of the bladder, shut off from the sloughy wound. The bladder itself was not much inflamed. The ureters were dilated, and there was double pyonephrosis, rather more marked on the left side, where there was a small calculus loose in the pelvis. The layer of kidney tissue varied from a mere membrane to half an inch in thickness. This patient ought not to have died; and I feel certain that a perineal tube would have kept the wound healthy and brought about a favourable result. A lateral operation would have been done, only that it was thought the stone was larger. Perineal drainage is not practised at home, mainly for two reasons. First, cases really requiring it are rare in civilised countries, patients being commonly treated while their stones are still small by crushing or by lateral lithotomy. Thus the cases liable to retro-pubic suppuration, urinary infiltration, and septic absorption, or, in other words, adults with foul urine and advanced suppurative pyelo-nephritis, have failed to be differentiated from the simple ones with sweet acid urine and oxalic or uric-acid calculi, who die, if at all, probably from some fault in the operation. And, secondly, an ordinary tube or catheter passed in from the perineum will probably fail to entirely divert the flow of urine from the supra-pubic route, and so be practically useless. But there is no doubt that with a suitable tube as above described the whole of the urine can with certainty be drained away, and the common causes of death entirely removed.

CASE 4. *Lateral Lithotomy; Hæmorrhage on fourth day; Death; Necropsy.*—I bring this case forward with a view of suggesting that cases of death after lateral lithotomy reported as due to secondary hæmorrhage are, in the absence of a post-mortem examination, possibly wrongly stated. The operation was done by Dr. Anderson, civil surgeon. The stone weighed 510 grains, was oxalic, with a thin coating of phosphates. The operation was rather prolonged, as the stone kept slipping from the grasp of the forceps. The temperature rose afterwards, and from the evening of the second day did not descend below 102° F. The patient became increasingly drowsy, and at 4.30 P.M. on the fourth day bleeding occurred, with clots as well as fluid blood. The hospital assistant computed the amount at six ounces. It ceased spontaneously. The patient died the same night at 2 A.M. Unfortunately, the urine was neither measured nor examined after the operation, having to be received into

carbolic fluid owing to the flies. Thus, in spite of the kidney symptoms, the bleeding was thought to show secondary hæmorrhage; but the necropsy proved that it was due to a general acute congestion of the whole urinary tract. There was old ecchymosis in the deep parts of the wound, with one or two bright spots, but no sign of any recent bleeding. The bladder was empty and contracted, its mucous membrane in longitudinal folds, and the ridges bright red from extravasation. The ureters and pelvis were dilated and acutely congested. There were bloody fluid and clots in both ureter and pelvis of the right side, and minute extravasations in the mucous membrane. Those on the left side were empty. The kidneys showed the signs of suppurative nephritis with recent acute congestion, rather more marked on the right side.

CASE 5. *Lateral Lithotomy; Extravasation of Urine on ninth day; Chronic Interstitial Nephritis.*—In this case I extracted an oxalic calculus, weighing 156 grains, from a boy aged sixteen years. Though small, it was much branched, and needed a fair-sized opening in the tough prostatic tissue, though it came easily through a small opening in the distensile skin and subcutaneous fat. The temperature kept about normal, and the whole of the urine was coming through the urethra, when, on the morning of the tenth day, we found the penis considerably swollen, and the scrotum and perineum less so. The soft, recent uniting medium in the wound was broken down enough to admit a small drainage-tube into a cavity containing a foul mixture of pus and urine. The penis was relieved by small punctures and slung up to a cradle. This treatment was evidently not enough; and next day there was more swelling and more fever. Though two large firm tubes were introduced and the whole of the urine drained away through them, there was considerable suppuration under the skin and in the glans of the penis. When this gradually healed up some weeks after, the temperature still kept elevated, at least in the evenings, and the urine was found to be faintly alkaline, with sp. gr. 1005 and 1006. There was a dry tongue and a tendency to diarrhœa, and the patient gradually emaciated. The wound was kept open superficially by a very short wire dilator. Drugs, such as quinine and boracic acid, were given internally. An attempt was made two months after the operation to let the wound close, as much of the urine came through the urethra; but suppuration extended under the skin into the perineum, and needed a counter-opening. When I left Aden, eighty-eight days after the operation, the temperature had only been normal in the evenings for a few days, and some urine was coming through the wound, which was still kept open superficially. The tongue was moist, however, and nourishment was well taken, and recovery seemed near. Extravasation during the healing of a lithotomy wound must be very rare. It seems natural to expect that a considerable obstruction to the passage of urine along the urethra should be a necessary factor in its production. But here there was none, and in one of the few cases of extravasation I have seen complicating stricture the stricture was only slight, and admitted a No. 8 catheter at the time. The case stands as a warning against a too limited superficial incision. The subsequent long-continued symptoms of chronic interstitial nephritis probably had some connexion with the fact that on first opening up the wound on the tenth day we came on to a small cavity of stinking urine and pus. The temperature before the extravasation took place had been quite normal for several days.

AMPUTATION OF THE PREGNANT UTERUS AT TERM, WITH INTRA-PERITONEAL TREATMENT OF STUMP.

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IN THE LANCET of Nov. 29th, 1890, was published an article in which I reported three successful cases of supravaginal amputation of the uterus for fibromata, with separate ligature of the vessels and intra-peritoneal treatment of stump. Since that article was written I have performed the same operation once more, also successfully, these four cases being the only ones in which I have practised the operation. On March 8th of this year an opportunity occurred of applying the same method of operation to a pregnant uterus at term.

A Fellah woman, primipara, aged twenty-three, was admitted at noon, having been in labour about 100 hours. She was completely collapsed, but conscious, and her pulse easily felt. Her pelvis was osteomalacic, and the rami of the pubis so approximated that it was with difficulty that three fingers were introduced. The membranes had ruptured three days previously, and the head was jammed on the pelvis. The only possible method of delivery was by an abdominal section, and though the chance of recovery was minimal, she elected to take that chance. At 2 P.M she was chloroformed, and the following operation performed. The abdominal walls were incised up to two inches above the umbilicus. The uterus was made to protrude, and turned to the right. This brought into view the huge vessels of the left broad ligament stretched on the distended uterus, and a closed artery forceps was easily passed under them, piercing the broad ligament and raising the vessels from the uterus. One handle of the artery forceps was then passed beneath them, and the two handles were held by an assistant ready to be clamped when required. The uterus was then turned to the left and the vessels of the right broad ligament similarly treated. The placenta was readily found at the top of the uterus, and the uterine wall incised below its attachment. The opening in the uterus was enlarged with the fingers, and the child, which had been for a long time dead, was easily removed, the artery forceps holding the vessels of the broad ligament being at the same moment clamped. Some two or three ounces of blood escaped from the uterine cavity. The uterus was then cut across with scissors, a little above the reflection of the peritoneum on to the bladder. No bleeding occurred except as the uterine arteries and veins on either side were cut across, they being at once seized with forceps. The stump of the uterus was washed out with water, draining through the vagina. The vessels of the two broad ligaments, already clamped, were separated one by one and tied with silk, as also were the uterine vessels. The edges of the stump were then sewn together with a continuous catgut suture, and the peritoneum united over it with a continuous Lembert silk suture. The peritoneal cavity was washed clean with sterilised water, a large glass drain inserted, and the abdominal wound closed. The whole operation occupied twenty-five minutes. The patient revived for a few hours after the operation, then sank gradually, and died at 7 next morning.

Remarks.—In spite of the fatal result, I think operative interference was not only justifiable, but a duty. The operation itself possesses various advantages: it is as easy of execution as an ordinary ovariotomy; there is no possible fear of hæmorrhage at the time of operation except from the slipping of a clamp, and the chance of subsequent bleeding is rendered minimal, as each vessel is ligatured separately. The stump is perfect, being entirely covered with peritoneum, and the peritoneal cavity is entirely closed except for the drainage-tube, which I think might be omitted. As regards the child, its nutrition is in no way interfered with, as the circulation is carried on normally until the moment when the uterus is opened. The preliminary fixing of the clamps round the vessels of the broad ligaments is not absolutely necessary, as generally there is but little bleeding from the torn uterus, but as a matter of caution I think it advisable.

REMARKS ON THE MALARIAL FEVERS OF THE PESHAWUR VALLEY, AND THEIR PROPHYLACTIC TREATMENT.

BY SURGEON-MAJOR ANDREW DUNCAN, M.D., &c.

INSPECTOR-GENERAL MUNRO has described the Peshawur valley as one surrounded by lofty mountains, with a great amount of water in it that was stagnating, and an absence of all permanent vegetation. These features, with the constant rotation of annual crops, all tend to produce malarious disease. The types of fever were said to be endemic in the valley, frequently becoming epidemic, remittent, intermittent, congestive remittent, and the ardent or simple continued. The usual rotation of these fevers was said to be as follow:—The simple continued occurred in April, May, and even in June; the remittent and congestive remittent in July, August, and September;

and the intermittent in October, November, and December. The year 1890 was marked by an uncommon prevalence of malarial fever in the Punjab. Taking the week ending October 11th, Dr. Stephen, the sanitary commissioner, showed that for every death from fever that occurred in the corresponding week 1889, more than three deaths occurred in the week during 1890. In the districts of Gupinwala, Gujrat, and Sialkot, the recorded mortality per annum reached as high as 269, 293, and 409 per 1000. The regiment of which I was the medical officer at the time was stationed in Peshawur. During 1889 it had suffered to an unusual degree from malarial fever when stationed at Thelum, and with this antecedent, and recognising the fact of the unusual prevalence of malarial fever in the Punjab in 1890, I thought that a good opportunity of estimating the effects of various prophylactics, and of determining the relative proportion of the different forms of malarial fever that were to be met with, had arisen. My results are set forth in this paper. The 14th Sikhs is composed extensively of Jat Sikhs, so that any disturbing factor due to the predisposition of different races was at once eliminated. The drugs that were used as prophylactics consisted of arsenious acid, cinchona febrifuge, quinetum, and quinine. From August 1st each man of A Company received once daily three grains of quinine; each man of B Company three grains of cinchona febrifuge; the remaining companies received no drugs. From Aug. 16th C and D Companies began to take seven minims of liquor arsenicalis twice daily after meals. From Sept. 15th C and D Companies took ten minims of liquor arsenicalis twice daily after meals. From Sept. 20th C and D Companies took twelve minims of liquor arsenicalis twice daily after meals. From Oct. 7th C and D Companies took fifteen minims of liquor arsenicalis twice daily after meals. From Oct. 11th E and F Companies took three grains of quinetum daily. From Oct. 29th A and B Companies took five grains of quinine and cinchona febrifuge once daily respectively, whilst E, F, G, and H Companies took five grains of quinetum daily. The following tables show the results:—

TABLE I.

—	Week ending August 8th.		Week ending August 15th.		Week ending August 22nd.	
	A Company, 3 grains of quinine. B Company, 3 grains of cinchona febrifuge. Remaining Companies, no drugs.		A Company, 3 grains of quinine. B Company, 3 grains of cinchona febrifuge. Remaining Companies, no drugs.		A Company, 3 grains of quinine. B Company, 3 grains of cinchona febrifuge. C and D Companies, 7 minims of liquor arsenicalis twice a day. Remaining Companies, no drugs.	
Company.	Simple continued fever.	Malarial fever.	Simple continued fever.	Malarial fever.	Simple continued fever.	Malarial fever.
A	1	1	—	—	—	—
B	—	—	1	1	1	—
C	1	1	1	—	1	1
D	—	—	2	1	1	—
E	—	—	1	—	—	1
F	—	—	2	1	—	—
G	—	—	—	—	—	—
H	—	—	2	—	—	—

TABLE II.

—	Week ending August 29th.		Week ending September 5th.		Week ending September 12th.	
	A Company, 3 grains of quinine. B Company, 3 grains of cinchona febrifuge. C and D Companies, 7 minims of liquor arsenicalis twice a day. Remaining Companies, no drugs.		A Company, 3 grains of quinine. B Company, 3 grains of cinchona febrifuge. C and D Companies, 7 minims of liquor arsenicalis twice a day. Remaining Companies, no drugs.		A Company, 3 grains of quinine. B Company, 3 grains of cinchona febrifuge. C and D Companies, 7 minims of liquor arsenicalis twice a day. Remaining Companies, no drugs.	
Company.	Simple continued fever.	Malarial fever.	Simple continued fever.	Malarial fever.	Simple continued fever.	Malarial fever.
A	—	1	—	—	—	1
B	—	1	—	—	—	—
C	2	2	2	2	1	1
D	2	3	3	1	—	—
E	—	1	1	1	—	4
F	2	—	1	3	2	4
G	4	—	2	2	—	7
H	2	—	2	2	1	1

From September 15th C and D Companies took 10 minims of liquor arsenicalis twice a day.
From September 20th C and D Companies took 12 minims of liquor arsenicalis twice a day.

TABLE III.

—	Week ending September 19th.		Week ending September 26th.		Week ending October 3rd.	
	A Company, 3 grains of quinine. B Company, 3 grains of cinchona febrifuge. C and D Companies, 10 minims of liquor arsenicalis twice a day. Remaining Companies, no drugs.		A Company, 3 grains of quinine. B Company, 3 grains of cinchona febrifuge. C and D Companies, 12 minims of liquor arsenicalis twice a day. Remaining Companies, no drugs.		A Company, 3 grains of quinine. B Company, 3 grains of cinchona febrifuge. C and D Companies, 12 minims of liquor arsenicalis twice a day. Remaining Companies, no drugs.	
Company.	Simple continued fever.	Malarial fever.	Simple continued fever.	Malarial fever.	Simple continued fever.	Malarial fever.
A	2	—	—	1	—	1
B	1	1	1	3	—	4
C	3	5	1	3	4	4
D	2	3	3	5	3	1
E	3	2	—	5	1	4
F	2	3	—	1	—	3
G	3	3	1	3	—	3
H	3	1	3	4	1	3

From October 7th C and D Companies took 15 minims of liquor arsenicalis twice a day.
From October 11th E and F Companies took 3 grains of quinetum daily.

TABLE IV.

—	Week ending October 10th.		Week ending October 17th.		Week ending October 24th.	
	A Company, 3 grains of quinine. B Company, 3 grains of cinchona febrifuge. C and D Companies, 15 minims of liquor arsenicalis twice a day. Remaining Companies, no drugs.		A Company, 3 grains of quinine. B Company, 3 grains of cinchona febrifuge. C and D Companies, 15 minims of liquor arsenicalis twice a day. E and F Companies, 3 grains of quinetum. G and H Companies, no drugs.		A Company, 3 grains of quinine. B Company, 3 grains of cinchona febrifuge. C and D Companies, 15 minims of liquor arsenicalis twice a day. E and F Companies, 3 grains of quinetum. G and H Companies, no drugs.	
Company.	Simple continued fever.	Malarial fever.	Simple continued fever.	Malarial fever.	Simple continued fever.	Malarial fever.
A	2	5	2	10	1	4
B	—	1	2	12	—	1
C	4	6	2	11	3	7
D	3	3	1	3	2	2
E	2	6	1	8	3	3
F	6	3	—	1	1	3
G	1	3	—	3	2	4
H	—	2	—	5	2	1

From October 29th A Company took 5 grains of quinine once a day.
" " B Company took 5 grains of cinchona febrifuge once a day.
" " C and D Companies took 15 minims of liquor arsenicalis twice a day.
" " E, F, G, and H Companies took 5 grains of quinetum once a day.
The early part of the week as in the week ending October 24th.

TABLE V.

—	Week ending October 31st.	
	A Company, 3 grains, afterwards 5 grains, of quinine. B Company, 3 grains, afterwards 5 grains, of cinchona febrifuge. C and D Companies, 15 minims of liquor arsenicalis twice a day. E and F Companies, 3 grains, afterwards 5 grains, of quinetum. G and H Companies, no drugs, afterwards 5 grains of quinetum.	
Company.	Simple continued fever.	Malarial fever.
A	—	4
B	1	3
C	—	3
D	—	6
E	—	12
F	—	13
G	2	4
H	—	1

After this date I was unable to carry on any observation, as I moved to Hoti Murdan to take up the medical charge of my present regiment.

Let us now consider the results gained, as shown by the above tables:—

1. *The Nature of the Fever.*—From Aug. 1st to Oct. 31st there were 385 cases of fever, of which 264 were malarial and 121 simple continued. The malarial fevers consisted of—Quotidian, 86 cases; tertian, 31; quartan, 10; irregular, 60; remittent, 77 cases.

2. *The Relative Preponderance of these various Forms in different Months.*—They were the following from March 1st to October 31st:—

—	Simple Continued Fever.	Quotidian.	Tertian.	Quartan.	Irregular.	Remittent.
During month of March ..	3	—	—	—	—	—
" " April ..	15	3	—	—	—	1
" " May	3	1	1	1	—	7
" " June ..	8	—	1	—	—	1
" " July	10	1	—	—	—	6
From Aug. 1 to Aug. 29 ..	26	4	5	2	2	3
" Aug. 30 to Sept. 26 ..	43	22	10	5	21	14
" Sept. 27 to Oct. 31 ..	52	60	16	3	37	60

It will thus be seen that these results differ somewhat from the cycle laid down by Inspector-General Munro; for the simple continued fevers, instead of ceasing in June, progressively increase to the end of October; the intermittent begin markedly in September; and the remittent are far more marked in October than September. Inasmuch as some authors dispute the very existence of such a fever as the simple continued, it may be well to indicate the form of fever I classify as above. By simple continued fever I mean a fever consisting of a single paroxysm, declining the day after to the normal, generally coming on after exposure to the sun, unaccompanied by any enlargement of the spleen, and not recurring, the patient not being treated with anti-periodics, but taking a single saline mixture. All the cases of fever above tabulated were treated on admission to hospital in this way until the form of fever became evident. A recent writer on the subject has expressed the opinion that simple continued fever does not exist in India, but that fevers in India resolve themselves into malarial and enteric. I, however, fail to see how a fever, consisting of a single paroxysm and with the features above described, can be considered malarial; as regards enteric, they can hardly, I suppose, be relegated even to the class of abortive enteric fever even in India, where enteric fever is supposed to arise from climate, and where its returns have recently so increased. With regard to the increase of enteric fever, however, the report of the late Commission may be read with advantage.

3. *The Effect of the Anti-periodics employed.*—These were arsenious acid, quinine, cinchona febrifuge, and quinetum.

Arsenious Acid.—This was strongly recommended by Tommasi-Crudeli in Italy in 1881. In 1882 Dr. Ricchi, Chief of the Medical Staff in charge of the Roman and South Italian railways, when malarial fevers were urgent, gave it to 455 workmen. Of these, 338 were either cured of fevers which they had, or prevented from contracting them. In 1883 these experiments were continued on 78 individuals in the Borino district, of whom one-half took arsenious acid. At the end of the fever season the men who had taken the drug were nearly immune, 36 out of the 39 had had no fever, the remaining 3 having had only slight attacks, whilst 39 who had not taken it had suffered from fever, many of them severely. My experience with this drug has, however, not confirmed these results. I tried it in 1886 and in 1887 without any benefit; and in 1890 the results were as follows:—C Company, from Aug. 16th to Oct. 10th, taking liquor arsenicalis (seven minims three times a day increased up to fifteen minims three times a day), had 18 cases of febricula and 24 cases of malarial fever; whilst D Company, under similar circumstances, had 17 cases of febricula and 16 cases of malarial fever. Compared with E, F, G, and H Companies, who took no prophylactics, the results are as follows:—

	Simple Continued Fever.	Malarial Fever.
C Co.	18 cases	24 cases
D "	17 "	16 "
E "	7 "	24 "
F "	13 "	17 "
G "	11 "	21 "
H "	12 "	13 "

I take the period up to Oct. 10th only, as during this time E, F, G, and H Companies received no prophylactics. Thus the arsenious acid exerted no prophylactic effect; if anything, the companies not taking it were rather freer from malarial fever than those taking it, whilst with regard to

simple continued fever the former decidedly enjoyed the advantage.

Quinine and Cinchona Febrifuge.—From Aug. 2nd to Oct. 31st, A and B Companies took respectively three grains, increased in the last week to five grains, of quinine and cinchona febrifuge respectively. I will first give the results up to the week ending October 10th, and compare them with the companies taking arsenious acid, and with the companies not taking any drugs. The results are as follows:—

		Simple Continued Fever.	Malarial Fever.
A Co.	Taking quinine	5 cases	10 cases
B ,,	Taking cinchona febrifuge	4 ,,	11 ,,
C ,,	Taking arsenious acid	18 ,,	24 ,,
D ,,	Taking arsenious acid	17 ,,	16 ,,
E ,,	Not taking any drug	7 ,,	24 ,,
F ,,		15 ,,	18 ,,
G ,,		11 ,,	21 ,,
H ,,		14 ,,	13 ,,

Here we see that the quinine and cinchona febrifuge exerted a decided prophylactic effect. But after the week ending Oct. 10th the drugs seemed to lose their effects somewhat; indeed, in the week ending Oct. 17th there were more cases of malarial fever admitted in each of these companies than in the others.

Quinetum.—E and F Companies began to take three grains daily from Oct. 11th; from Oct. 18th G and H Companies also took the same dose. The results up to Oct. 31st in these companies, as compared with the other companies, were as follows. From Oct. 11th to Oct. 31st:—

		Simple Continued Fever.	Malarial Fever.
A Co.	Taking quinine	3 cases	18 cases
B ,,	Taking cinchona febrifuge	8 ,,	16 ,,
C ,,	Taking arsenious acid	5 ,,	21 ,,
D ,,		3 ,,	11 ,,
E ,,	Taking quinetum	4 ,,	23 ,,
F ,,		1 ,,	17 ,,
G ,,		4 ,,	11 ,,
H ,,		2 ,,	7 ,,

The period is too short to draw any valid conclusions.

General results.—Sir Anthony Home, when principal medical officer of the Ashanti Expedition, came to the conclusion that quinine exerted no effect as a prophylactic against malaria. The French in Algeria have also found no good effects. But the contrary opinion has been formed on many occasions. Van Buren and Hammond in America have found it to protect men from malaria. At Peshawur in 1866, it was found that the men not taking it had an admission-rate for malarial fever nearly threefold that of those who took it; and my tables quoted above show that both quinine and cinchona febrifuge do exert a prophylactic effect. Arsenious acid, on the other hand, has not fulfilled the expectation formed from the results of the experiments in Italy. The strength of the various companies during the dates specified was practically the same.

A THEORY OF SEX.

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SOME years ago I placed on record in the pages of the medical journals a short statement regarding a theory of sex which it seems advisable to recapitulate at greater length, if only by way of affording opportunity for the discussion of this interesting and fascinating topic. Regarding a theory as a guide to the elucidation of truth, and considering a correct theory as one which explains all the facts and is contrary to none, I submit my views for criticism on this rational basis. It may be proved that I have erred in my conclusions through the deficiencies of my premisses, and that my notions of sex evolution are untenable altogether; but at the most and best I submit my views as constituting a provisional and tentative hypothesis only, and as one which subsequent research will either confirm or altogether refute. Beginning thus with a free hand, let me briefly state the gist of the theory in question. It is a tolerably safe maxim in biology, and in other departments of science as well, that we should not ascend into the clouds for explanations of things which lie at our feet. Sex should be, and is, no more mysterious as to its origin than, say, the nature of liver-functions or of pancreatic duties. It only presents greater difficulties, perchance, in the way of solution, and is environed by more complex conditions than is the question of hepatic work. Yet, to discover the conditions to which the causation of sex is due, we may not go far astray if we search among the common functions and actions through which life at large is maintained and conserved. Amid such functions that of nutrition stands out in bold relief as one which exercises a very prominent influence on the development of living tissues. Sir James Paget long ago pointed out how nutrition affects development, and Herbert Spencer has emphasised this teaching in many ways in his biological discussions. In so far as the origin and determination of sex are concerned, it is therefore a perfectly just observation that nutrition is likely to play a very important part in its evolution. This primary consideration is important, because, if it may be suggested with a fair show of reason that nutrition lies at the root of sexual differentiation, we may claim to have at least paved the way for the further and scientific consideration of the whole subject.

Wellnigh every recent theory of sex which has had a basis of scientific nature, as distinguished from theories which are merely the outcome of isolated and detached ideas regarding sexual differentiation, has started from the standpoint of nutrition as the one factor of import in sex production. As an illustration of a recent theory of sex, that elaborated and illustrated by Messrs. Geddes and Thomson in their "Evolution of Sex" may be mentioned. These authors hold that a *katabolic* habit of body (or conditions in which there is a tendency to the predominance of waste over repair) favours the production of males. The opposite habit, that of *anabolism*, which favours constructive processes, on the other hand, tends to the production of females. Here it is evident nutrition is regarded as the starting-point of everything. It is the general factor which acts upon the special phases of sexual development. Experimental evidence is called to aid the induction thus made. High-fed tadpoles turned out males in gross excess, while "left to themselves the percentage of females was rather in the majority." How far the case of tadpoles can be regarded as applying to the mammalia is, of course, a serious consideration with the critic of these facts. We must not forget that while the adult female is almost always the stronger and the best developed in lower life, the case is reversed among mammals. This alone is a biological fact worth bearing in mind; for if the male be the stronger in the human species, as he undoubtedly is, it seems illogical to conclude that the laws of sex-differentiation in lower life, with its bigger females, should apply to higher existence.

What help we obtain from embryology is naturally of great importance in the matter before us. Everyone knows that the male and female generative organs are developed, each out of a common or indifferent type, just as their adult homologies are plainly enough indicated. About the sixth week of intra-uterine life the genital glands begin to appear. The male organs are formed by specialised developments of the common type, just as the female organs appear in their turn through equally specialised developments of the same type. If the development of an animal shows us the history of its race-evolution—that is, if embryology be a guide to ontogeny,—then it seems clearly enough demonstrated that the sexes of higher animals have arisen out of a once common or hermaphroditic type. To put the matter plainly, it would seem as though each fœtus at its outset hangs or rests in equilibrium as regards its sex. Something occurs in its history which gives it a bias to the male or to the female side, and it is precisely the nature of that something which it is the business of exact science to determine, and of theory to provisionally indicate.

Like my predecessors in the domain of theoretical explanation, my faith is large in the influence of nutrition as the factor which determines sex. That subsidiary causes, heredity, temperament, and other influences may also operate to this end, I am far from denying; but to nutrition, even from the period of the ovum and its fertilisation, I attribute the main cause of sex-differentiation. I take for granted that menstruation is really ovulation, and that the latter process consists in the development and extrusion of ova which are fertilised, in man, usually in the Fallopian tube. Now, prior to fertilisation there can, of course, be no question of sex. Fertilisation alone determines the beginning of embryonic development, and shortly stated, my theory of sex therefore holds, that when an ovum is ferti-

lised *before* the occurrence of the menstrual period it will develop a male embryo; while, conversely, if the ovum is impregnated *after* the menstrual period, it will result in a female conception.

These statements require further explanation. By pre-menstrual fertilisation, I mean the impregnation of an ovum which would have been given off and would have perished in an impending menstruation. Suppose a woman due to begin menstruation on the first of the month, and that coition and impregnation take place, say, during the last days of the preceding month, the impending period will of course be "missed." This I term pre-menstrual impregnation, and this I hold will result in a male birth. Contrariwise, let us suppose the woman menstruates from the first to the fourth of the month, and that intercourse occurs, say, on the fifth or sixth and is followed by impregnation—this I call a post-menstrual impregnation, such as I hold will produce a female birth.[1]

I can anticipate many objections to my theory, of course, but I ask for its free criticism and for a practical investigation of its merits. I take it for granted that the old idea of a special proclivity to conception just before and just after menstruation, is founded securely enough on common clinical experience, domestic and professional alike. At least, I hold to the received notion (*pace* my friend Mr. Lawson Tait) that ovulation and menstruation, if not always concurrent or inter-dependent, still exhibit a close enough relationship to warrant my founding a theory upon their mere existence. Now, if there does exist this pre- and post-menstrual liability to conception (with the usual calculation of pregnancy from the date of the last menstrual period), is it conceivable that the time and circumstances of conception should be without a due influence on the product of conception? That which specially results, in my opinion, is an effect upon the nutrition of the ovum. An ovum, we know, will live for a certain undetermined length of time in the Fallopian tube and uterine cavity. When first extruded from the ovary, it is reasonable to conclude the ovum is in the perfection of its development. It is ready and ripe for fertilisation, and all its powers and tendencies are in the full flush of their vigour. I am purposely supposing that the extrusion of ova takes place prior to the appearance of the menstrual flow itself—a perfectly warrantable belief in its way,—just as the life of the ovum persists after the flow has ceased, and fertilisation at this early stage therefore finds a robust ovum ready whereon to operate. It is the reverse with the ovum at the post-menstrual period. The ovum has lain in the tube or uterus, and has lost vitality. Immeasurably small and insignificant may be the loss; still it seems reasonable to believe that the further off an ovum is from its extrusion, the less vital and vigorous must it be. Thus, I opine, if impregnation acts on an early and robust germ cell, it receives a nutritive bias which sends it (as the stronger ovum) to the male side; while if impregnation be delayed, we obtain a weaker ovum, or less vigorous germ, whose lessened nutrition swings it over to the weaker female side. Hermaphroditism, according to this theory, would result from fertilisation of an ovum in stable equilibrium. If impregnation occurred at what we may call the "middle term" of its existence, when the ovum obtained no definite bias in either male or female direction, we may presume that an indefinite or mixed type of sexuality would result.

If any modification of my theory is admissible, I may here suggest that it is not necessary that we should bind ourselves absolutely to the terms "pre-menstrual" and "post-menstrual" as indicating any rigidly defined periods of fertilisation. I believe that such terms are actually represented in the phenomena of impregnation, and that, taking the occurrence of menstruation to represent a physiological epoch, as it were, we are justified in distinguishing between impregnation occurring before the establishment of the monthly crisis and that occurring after its cessation. Alternatively it might be held that neglecting the menstrual period, the tendency of any ovum to develop a male embryo depends on its early fertilisation after its escape from the ovisac. The longer impregnation is delayed after the extrusion of the ovum, the greater is the tendency, on this view of things, to the development of the less robust female side. To my way of thinking it is anabolism in mammalian ova which produces males, and katabolism which gives origin to females.

Such, briefly stated, are the results of my cogitations on the subject of sex. Manifestly crude as my theory may be, I venture to think it is worth the attention of obstetricians especially. It has been possible now and then for me to obtain information from married friends who have been sufficiently interested in the topic to note the results of their family increase, and one or two of a scientific turn of mind have been able, as they say, to verify my conclusions. Obviously, proof is difficult of collection, but obstetricians at least may be asked to note and observe facts as they stand, and may possibly take the trouble to place on record evidence for or against my belief. It is as a provisional hypothesis alone, that I advance these views. The only justification they require is that they should not travel outside biological probability, and I would fain hope that, in this respect at least, they conform to the rules of reasonable speculation.

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[1] Investigations into the relative proportions of the sexes in certain nations may reveal facts *pro* or *con.* this theory of sex. Male births, for example, are more frequent among the Jews than female births. Is this fact due to the avoidance of intercourse after menstruation (i.e., during the prescribed period of purification), so that the ovum fertilised would prove to be a pre-menstrual product, because it would belong to the next period due?

THE DURATION OF PREGNANCY, WITH ANOMALOUS CASES IN THE HUMAN FEMALE.

BY JAMES OLIVER, M.D., F.R.S. EDIN.

IT is important that we should if possible be able to advise a woman who is pregnant regarding her probable date of confinement. The question is often asked, and naturally we are expected to be in a position to answer it. In the case of the lower animals we find that the average duration of gestation may be fixed, but that it cannot be reckoned with certainty. This, it may be remarked, is so even in the greyhound, the horse, and special breeds of cattle when every precaution has been taken to prevent the possibility of promiscuous intercourse, and when the date of covering or warding has been carefully noted. If, therefore, after the closest observation, and in spite of the fact that due care has, as far apparently as human intervention is possible, been exercised to eliminate every element of confusion, naturalists still experience difficulty in settling the question of the duration of pregnancy in the lower animals, it is not astonishing that diversity of opinion should be displayed regarding this question in the case of the human female.

Let us consider briefly what condition of affairs obtains on this important subject in the case of some of the lower animals, as a review of these may help us greatly in our investigations regarding the human female. At the present time great care is bestowed upon the rearing of domestic fowls, and as the impregnated ovum is deposited and brooded outside the body, and as the chick may be developed by a careful regulation of heat artificially maintained, I shall here detail a few facts regarding the incubation of the egg of this bird. It is not necessary that the eggs placed under a hen or in an incubator should all have been laid on the same day. If none are more than a week or ten days old, no difference is noted regarding the length of time required for the maturation of such, provided that, if the eggs are treated in an incubator, the requisite heat is maintained, or if brooded naturally they are not from time to time unduly exposed, and thereby chilled. Under ordinary circumstances, twenty-one days are required for hatching, whether artificially or naturally, hen eggs belonging to any breed. Out of a sitting of thirteen eggs, it often happens that one or two of the chicks make their exit from the egg on the twentieth day. These usually turn out to be the strongest chickens, whilst any which may make their appearance after the twenty-first day are as a rule weakly. It sometimes happens that the hen covers the eggs badly, or that she spends too much time in feeding, when the chicks may in consequence be delayed one or more days in making their appearance. Breeders consider that one male bird is sufficient for seven, nine, or even twelve hens, according to the variety. An active cock of a heavy breed can easily manage seven hens, whilst one of a lighter breed manages nine to

twelve. It is said that in some exceptional cases one male bird has served to fertilise the eggs of thirty and even more hens. It is therefore evident that the male bird impregnates ten, twelve, or more ova at each covering, and that an ovum may be impregnated before it is actually ripe for this process. We are justified, too, in affirming that ova fertilised by the same stroke, although expelled from the body of the hen during a varying period of seven or ten days, are nevertheless capable of being hatched on the same day. Mr. Hew Crawford of Hewitts, Chelsfield (to whom I am indebted for much of my knowledge regarding the domestic fowl), informs me that this phenomenon has been tested. He says: "A laying hen was put by with a cock, and after one copulation the hen was kept separate from any male bird. Seven of the eggs laid thereafter by this hen were brooded and a good average of chickens was obtained."

It is stated that the greyhound bitch goes with young sixty-three days. The reckoning is made from the time of warding. This number of days appears to represent the average duration of pregnancy with this animal. It cannot, however, with certainty be relied upon, for instances are on record in which two bitches have on the same day given birth to young, in spite of the fact that seven days intervened between the respective days of warding. Stonehenge, in discussing the question of the duration of gestation in the case of the greyhound, says: "I am strongly of opinion that the nine weeks must not date from the access of the dog to the bitch, but from the middle of her heat." On the evidence of this great authority it would appear that the duration of pregnancy with the greyhound cannot with certainty be reckoned, and that with this animal, as in the case of the domestic fowl, a knowledge of the exact date of insemination only tends to increase our difficulty in solving the question and interpreting aright anomalous cases when they come under observation.

The information we obtain from an investigation of this subject in the case of some of the other lower animals is alike unsatisfactory. In speaking of the domestic pig, Darwin[1] says, "The number of mammæ vary, as does the period of gestation." S. Sidney affirms that the period averages from seventeen to twenty weeks, but Darwin thinks there must be some error in this statement. In M. Tessier's observations on twenty-five sows it varied from 109 to 123 days. In ten carefully recorded cases with well-bred pigs, observed by the Rev. W. D. Fox, the period varied from 101 to 116 days. It appears that the duration of pregnancy varies according to the race, for Nathusius informs us that it is shortest in those races of pig which come early to maturity. In the case of cattle a like variation has been noted, for M. Lefour asserts that "the period of gestation is longer in the large German cattle than in the smaller breeds." M. Tessier has carefully recorded his observations on 1131 cows, and according to this authority the period of gestation may vary with this animal to the extent of eighty-one days.

"The period of gestation," says Darwin,[2] "was formerly thought to be so unalterable a character that a supposed difference between the wolf and the dog in this respect was esteemed a sure sign of specific distinction; but we have seen that the period is shorter in the improved breeds of the pig and in the larger breeds of the ox than in other breeds of these animals. And now we know, on the excellent authority of Hermann von Nathusius, that Merino and Southdown sheep, when both have long been kept under exactly the same conditions, differ in their average duration of pregnancy, as is seen in the following table:—

	Days.
Merinos	150·3
Southdowns	144·2
Half-bred Merinos and Southdowns... ...	146·3
Three-quarter blood of Southdown	145·5
Seven-eighths „ „	144·2

In the majority of the lower animals the generative organs are functionally active during certain epochs only, and as promiscuous intercourse may be prevented, the exact date of insemination can be recorded; in spite of this, however, the duration of pregnancy is frequently found to vary in any given breed to the extent of many days. In the human race, again, the organs of generation are apparently capable of fulfilling their functions at almost any time, and the date of insemination can hardly ever be assigned or relied upon. We cannot, therefore, as a rule base our calculations for the duration of pregnancy upon the same data as in the lower animals. When, however, a woman becomes pregnant it usually happens that menstruation is held in abeyance, and it is agreed that, under ordinary circumstances, the date of the cessation of the last menstruation—an event which the patient may correctly observe—is the only one from which we can reckon the probable duration of pregnancy. It sometimes happens that a woman menstruates once or oftener after she has become pregnant, or that she becomes pregnant whilst suckling, and whilst correlatively the usual monthly discharge is still held in abeyance; in such cases we are practically deprived of all data on which we may base our calculations. It is generally believed that impregnation is more likely to take place immediately after the cessation of menstruation than at any other time. At the present time it is impossible to assert positively that ovulation and menstruation are or are not correlated. I am inclined to believe they occur independently. If, however, it were admitted that these two processes are dependent upon each other, it would still be a question of pure speculation to attempt to determine with which menstrual period a fertilised ovum was connected, for it is more than probable that a woman may be impregnated at any time, even although, as in the case of the domestic fowl, the ovum may not be actually ripe for this process.

I find after very careful observation that the duration of pregnancy varies as much in the human female as it does in the lower animals. We can only reckon from the last menstruation, but in doing so we must ascertain exactly the cessation of the flow, for it will be remarked that when the duration of the flow varies but little, the patient, when asked when she was last unwell more commonly gives the date of beginning than the date of cessation. In this way error may be made in our calculations to the extent of four or even seven days. The majority of authors are agreed that, in reckoning the duration of pregnancy in woman, we ought to fix the probable date of delivery on the 278th day from the day of cessation of the last menstruation. I am of opinion that the best results will be obtained by reckoning from the middle of the inter-menstrual period, a cycle which varies greatly in its duration. Ascertain the day of the cessation of the last menstruation, and then the usual duration of the inter-menstrual period; divide the inter-menstrual days by two, add this number (i.e., half the inter-menstrual days) to the date of the cessation of the last menstruation and reckon 260 days from this conjoint date, which will most probably be the date of confinement.

As I have already stated, the duration of pregnancy varies, and in support of this affirmation I shall here detail the facts in one or two carefully observed cases.

Emily W—— (a patient of Dr. Darlow, Upton Manor, to whom I am indebted for some of the facts), aged thirty, and married nine years, came to me at the Hospital for Women on Oct. 29th, 1890. She had already given birth to one child, and this was twelve months after marriage, or eight years ago. She had never had any miscarriages. Present history and signs: She was last unwell on March 5th, 1890, having previously been perfectly regular. She complained simply of "swelling of the stomach." She had no symptoms of pregnancy other than the cessation of menstruation, and she did not think she was pregnant. On examination the abdomen was occupied by a soft globular swelling reaching to the umbilicus. This size of uterus, I may here note, corresponded well with the date of cessation of the last menstruation—viz, March 5th—the present date being Oct. 29th—i.e, 238 days from the last menstruation, or 223 from the middle of the intermenstrual period. The fœtal heart was detected. Colostrum was obtained from both breasts. On Jan. 21st of this year patient "was taken with labour pains," and sent for Dr. Darlow. These, however, passed off, and did not return until March 23rd, when a living male child was born. Jan. 21st was the 307th day from the middle of the intermenstrual period after the last menstruation, while March 23rd, the date of delivery, was the 368th day, or the 383rd since the date of the cessation of the last menstruation—viz., March 5th, 1890.

In a letter to me, Dr. Darlow says: "Mrs. W—— was anticipating confinement about the end of last year." Had

[1] Animals and Plants under Domestication, vol. i., p. 74.
[2] Ibid., vol. i., p. 97.

this patient not been seen until labour had actually set in on March 23rd, one might have doubted the correctness of the date of the cessation of the last menstruation. As, however, I saw her on Oct. 29th, and found the abdomen occupied by a uterus which reached to the level of the umbilicus, the case must be considered a very unusual one. This was the patient's second pregnancy, eight years having lapsed since the first confinement. The delay in conception, however, could be accounted for.

Edith W——, aged twenty-two, has been married three months. Date of marriage, Nov. 10th, 1888. Date when first seen by me, Feb. 20th, 1889. On Dec. 25th she was "unwell" as usual. On Jan. 25th she again menstruated, but the flow on this occasion was scanty. On March 9th colostrum was obtained from both breasts. On March 23rd the uterus reached to one inch from the umbilicus. On April 1st movements were appreciated by the patient for the first time. On Sept. 3rd she was delivered by Dr. Gimson, of Fitzroy-square, W., of an apparently full-time female child. This patient was confined on the 206th day from the middle of the intermenstrual period subsequent to the last menstruation, or on the 221st after the cessation of the last menstruation. Taking all the facts into consideration, it is more than probable, however, that this patient must have menstruated twice after conceiving. On Dec. 25th the first menstruation occurred after impregnation, and on this occasion the quantity lost was as usual. The second menstruation took place on Jan. 25th, but this time it was scanty.

Jane L——, aged thirty-seven, and married fifteen years, has had seven children and no miscarriages. Patient was "unwell" in Nov., 1888, and was not again until the end of Jan., 1889—i.e., missed Dec., 1888. During March and the first fortnight in April she suffered almost constantly from a hæmorrhagic discharge. This patient was seen by me on Aug. 1st and stated that she had not been "unwell" since the middle of April. She further stated that on April 22nd (Easter Monday) she had felt the movements of the child, and that she had continued to feel these movements until a month ago (some time in July). On Dec. 30th, 1889, this patient gave birth (without trouble) to an apparently full-time male child. In this case it is very difficult to say what was the probable duration of pregnancy. At first, when I saw the case for Dr. Parrott of Camberwell-road, I was rather inclined to the opinion that it was one of extra-uterine pregnancy. I advised watching, however, and this was done, with the result—natural labour—on Dec. 30th.

Gordon-square, W.C.

Clinical Notes:

MEDICAL, SURGICAL, OBSTETRICAL, AND THERAPEUTICAL.

CASE OF RARE MALFORMATION OF FACE, ACCOMPANIED BY OTHER ABNORMALITIES.

By W. H. C. STAVELEY, F.R.C.S.

THE patient, a male infant, was admitted ten hours after birth to the Victoria Hospital for Children, Chelsea, on Nov. 27th, 1889, suffering from imperforate anus. The face was deformed, as figured; the nostrils extending upwards almost to the inner canthi of the eyes; the lips and palate were normal. The deformity was symmetrical, and may be explained developmentally by failure of union of the external nasal processes of the fronto-nasal with the maxillary plates. He was the third child, and was born at full term. The eldest, a boy just turned three years of age, was alive and well. The second was said to have had exactly the same deformity of face, and died aged two months. No other member of the family had been deformed, and there was no history of maternal impression. The pregnancies had obviously rapidly followed one another. The genitals were normal. A catheter was passed, from which urine freely escaped, and used as a guide whilst an attempt was made to reach the gut through the perineum. This failed, and I performed left iliac colotomy. I failed to recognise with certainty the sigmoid flexure, but a large distended coil of intestine lying in the iliac fossa was seized, sutured to the abdominal wall, and, as the abdomen was greatly distended, immediately opened. The infant took food freely, cried lustily, slept

well, and the temperature continued normal, but he died suddenly forty-eight hours after the operation.

Necropsy.—Thoracic viscera normal. Abdomen: No peritonitis; the upper part of the sigmoid flexure, which was the coil seized at the time of operation, firmly united to the abdominal wall by plastic exudation. The great omentum was entirely absent. The large intestine was surrounded by peritoneum, and had a short mesentery throughout. The sigmoid flexure had a very long mesentery, and extended right across to the right iliac fossa. Throughout the large intestine there was no indication of the appendices epiploicæ or of the normal longitudinal muscular bands. The rectum terminated blindly one inch and a half above the normal position, the perineal incision having only just failed to reach it. The other viscera were normal.

St. Stephen's-square, W.

CASE OF PITYRIASIS RUBRA.

By R. W. LLOYD, M.R.C.S. &c.

ON July 13th, 1891, J. B. T——, aged sixty-eight, a big, powerful man, a retired sea captain, who had been much in the East and suffered frequently from malarial fever, and of late for many years from frequent attacks of gout, and occasional more or less extensive attacks of eczema of the flexures of the joints of the eyelids and genitalia, consulted me when the eczema was in an aggravated form and complicated by several indolent inflammatory swellings on the nates and in the perineum. There was no albumen in the urine, and the patient was otherwise sound. During the ensuing three weeks, by careful dieting and the administration of alkalies with colchicum, arsenic, or iodide of potassium and saline aperients (boracic acid ointment being used locally), considerable improvement took place. Then irritation and congestion of the skin increased (this was coincident with the commencement of the painting of the patient's house), and in two days the skin of the whole body became intensely and diffusely inflamed, with œdema of the eyelids. The urine was then suppressed for twenty-four hours. Ten minims of digitalis were administered every four hours, and the flow re-established, and measured three pints in the twenty-four hours on successive days; no albumen; specific gravity not low. There was no moisture of the surface; starch powder was generally applied, but one arm was wrapped in linen soaked in lin. plumbi c. oleo, and to the other arm boracic acid ointment was applied, neither seeming to have any effect. Very extensive and rapid desquamation commenced about the third day, the epidermis separating in large flakes several inches in extent, leaving the surface still dry and of a dark red colour, which did not fade on pressure. The whole surface was shed, but the process of desquamation continued, the flakes of epidermis being now smaller. During this acute attack the pulse was full, about 80 to 96 per minute, and the temperature, usually about 99°, varied from normal to 101°. There was intense thirst, as much as eight quarts of milk

being taken in one twenty-four hours, beef-tea and barley-water being also given. From the rapid loss of muscular strength and failure of the power of the voice the disease was evidently very debilitating; so that at the end of a week small doses of carbonate of ammonia with bark were administered every four hours. About the thirteenth day of the disease the increasing weakness of the system was beginning to be manifest in the pulse, and there was œdema of the legs. On the fifteenth day the pulse was irregular and intermittent at times, but the œdema had subsided. Temperature 98·4°. On this day Mr. Stephen Paget kindly saw the patient with me, and advised that the carbonate of ammonia should be increased, that olive-oil should be applied to the surface, and that as liquid stools, not very copious, had been voided several times a day for two or three days, an enema should be given to make sure that there were no fæcal masses in the bowel. This was done. No solid fæces escaped. The patient continued to sink, and died twenty-four hours afterwards, although the thirst continued, and he took much of nutritious liquid up to within a few hours of his death.

The most striking points in this case appear to have been the rapid general inflammation of the skin, the suppression of urine, the absence of albumen, the furious desquamation, the comparative absence of fever, the great thirst, marked prostration, and, what has not been mentioned, frequent shivering after the desquamation commenced without complaint of cold, as well as absence of headache or pain, and the little or no irritation after the first few days of the acute attack.

Kensington, W.

ULCERATION OF THE MOUTH AS A SYMPTOM OF LEAD POISONING.

By OSMUND STEDMAN, M.D. LOND.

I HAVE thought it worth while to record a few notes on this subject because it does not seem to be mentioned in the ordinary text-books as one of the symptoms of lead poisoning. My attention was first directed to ulceration of the mouth as a symptom in this disease by a friend who had two cases in one family, both children, who each had a crop of small ulcers in the mouth, and on having the drinking water analysed it was found to contain a considerable trace of lead. He asked me if I knew it to be a recognised symptom. My answer was that I had not heard of it. In April of this year I was called to see a child about two and a half years of age. He was feverish, temperature 100·4°, and had six or eight small ulcers in his mouth which are best described as "phlyctenular." They were situated on the inner sides of the cheeks, some opposite to where there were teeth, and some further back, so that they did not appear to bear any relation to the teeth. The ulcers consisted of red excoriated spots varying in size from that of a pin's head to that of a hemp-seed, each surrounded by a small halo of whitish swollen mucous membrane. The child was constipated, and except the fever had no other symptom to note. The following day he vomited several times, and had frequent attacks of griping pain in the abdomen (colic), during which he screamed and drew up his legs. These symptoms, of course, clearly pointed to lead as the cause of the trouble, and on analysing the drinking water it was found to contain a considerable trace of lead, the source of the contamination being rain water stored in a lead-lined tank. There was no blue line present at any time, and on removing the cause of the trouble the patient rapidly got better, the treatment being directed to relieve the constipation by enemata, and the colic by small doses of opium. It would seem, therefore, that in cases of ulceration of the mouth in children one should look carefully for lead poisoning as a possible cause.

Sevenoaks.

THE INFECTIOUS DISEASES ACTS.—The Keynsham Board of Guardians, acting as the Rural Sanitary Authority, and the Malton Rural Sanitary Authority, have decided to adopt the Infectious Diseases (Notification) Act, and the Infectious Diseases (Prevention) Act. A letter received from the Central Authority, by the Malton Board, stated that out of 575 rural sanitary authorities in England and Wales, 390 had adopted the former Act, and 135 the latter.

A Mirror OF HOSPITAL PRACTICE, BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Proœmium.

ST. GEORGE'S HOSPITAL.

TWO CASES OF PRIMARY AMPUTATION AT THE SHOULDER-JOINT.

(Under the care of Mr. PICK and Mr. BENNETT.)

THESE cases illustrate the operation of amputation at the shoulder-joint as not infrequently required in our large hospitals. In the first case the limb had been torn off completely; in the second there was an extensive crush of the bone extending up to the joint. The flaps were fashioned as appeared best adapted in each. It is interesting to refer to the tables given by Messrs. Dent and Bull[1] of the mortality attending amputations at this hospital, showing as it does continuous improvement as the result of more recent methods of wound treatment. In a series of 300 cases between 1852 and 1866 the mortality was 27·6 per cent.; in 200 cases between 1866 and 1874, 37·5 per cent.; and in 400 cases between 1874 and 1888, 21 per cent. The mortality between the ages of twenty and thirty, which in a first series amounted to 18·9 per cent. and in the second to 34·7 per cent., in the third had fallen to 14·7 per cent. Essen of Dorpat[2] gives a series of 162 major amputations from 1878 to 1888, with a mortality of 17·9 per cent. Roman and Klopfer[3] report from the Tübingen clinic 205 major amputations from 1882 to 1888, with a mortality of only 2 per cent., and attribute the low percentage to the use of wood wool as a dressing and corrosive sublimate as an antiseptic. The following account is from the notes of the surgical registrar, Mr. W. Allingham.

CASE 1.—D. H——, aged twenty, was admitted into St. George's Hospital on March 15th, 1891. That morning, whilst he was working a machine, his right arm had been caught in it and had been torn completely away about the middle of the humerus. A tourniquet had been applied at the factory, so that there was but little hæmorrhage. The skin about the chest and back was also very greatly bruised. On admission the patient was in great pain, but was not very much collapsed. Amputation was performed by Mr. Bennett. The axilla was cut down into and the axillary artery ligatured. Mr. Bennett then made a large deltoid skin-flap, which contained no muscle. The joint was opened from above, and a posterior flap was made by a cut right through. The vessels were ligatured with catgut, a drainage-tube was inserted, silkworm gut sutures were introduced, and antiseptics were used. After the operation the patient was in a very fair state. He had no pain, though he complained of much thirst. Just before midnight, however, he had a rigor, and the temperature rose to 103·3°, falling to 99·4° by the morning of the 18th. The wound was dressed, and there was some blood-stained discharge. On the 20th he was feverish, and the temperature was 102°. The margins of the lower flap were sloughy, and there was a good deal of discharge. He had pain in the right chest near the third rib in front. From the 22nd onwards the stump was dressed daily. On the 26th the sutures and drainage-tube were removed. The sloughs were separating, and the discharge had diminished. On April 4th most of the sloughs had separated, and the wound looked more healthy. The temperature had dropped steadily to a little about normal. On the 11th the wound was healed, and on the 22nd he was discharged well.

CASE 2.—J. J——, aged twenty-three, was admitted into St. George's Hospital on April 1st, 1891. That day the patient had caught his right arm in some machinery, and had had it crushed right up to the shoulder-joint. The axillary artery was torn through, but did not bleed. The skin of the chest and back was badly lacerated and bruised.

[1] Medico-Chirurgical Society's Trans., THE LANCET, June 14th, 1890.
[2] Sajous, vol. iii., 1890. Deut. Zeits. für Chir., vol. xxxi., Nos. 1 and 2.
[3] Ib., et Beitrage zur Klin. Chir., vol. vi., p. 405.

On admission the patient was exceedingly collapsed. His condition was as described, and the arm was simply hanging by a piece of skin. The face was bruised and the nose grazed. Mr. Pick cut the arm away, and dissected out the upper part of the humerus. The small vessels bled pretty freely. In consequence of the skin being so much bruised, it was difficult to unite it over the wound. Drainage, silkworm gut sutures, and antiseptics were employed. The wound was dressed that evening, in consequence of a free serous discharge and oozing of blood. On the 2nd, on dressing the skin it seemed inclined to slough. The patient had a good deal of pain; the tongue had a slight white fur. The temperature ranged from 99·5° at the time of operation to 102° on the 5th. A slough, which gradually extended, formed at the edge of the upper flap. Some of the stitches were removed on the 6th, and the drainage-tube was taken out on the 9th. He had little pain. Temperature 99·8°. After this all went well. On the 17th some sloughs had still not separated, but the wound was granulating well and looked healthy. On the 24th the stump was grafted. On the 29th, when the dressing was removed, there was an enormous amount of pus and slough in the dressing. On May 13th he was discharged well.

Remarks.—The interest in these cases lies in the fact of them both recovering after such severe accidents: this was no doubt due to the antiseptic way in which both cases were treated. Such recoveries were rare in days gone by, when cleanliness was little thought of and seldom practised.

ESSEX AND COLCHESTER HOSPITAL.

AN UNUSUAL CASE OF INTESTINAL LESION; NECROPSY.

(Under the care of Dr. ALEXANDER WALLACE.)

EXAMPLES of the formation of gastro-colic fistula presenting also symptoms of obstruction are rare, and the combination of symptoms renders the diagnosis difficult. The formation of a communication between the transverse colon and the stomach in cases of cancer of the latter is unusual. Dr. May[1] reported the history of a patient last year who had a large opening caused by cancer in the situation referred to; the man lived four months. It is said[2] that of 507 cases of cancer of the stomach, in only 4 per cent. has this fistulous opening formed.

J. F——, a submarine diver in the employ of the Great Eastern Railway Company at Harwich, aged seventy-six, was admitted on July 6th, 1891, as an in-patient with supposed intestinal obstruction, as he was vomiting fæcal matter. He stated that his bowels had been troublesome for some months in an increasing ratio; there had been no proper action for twelve days. Tongue much coated, dry; ordered milk diet and ice, and an enema of an ounce of castor oil and a pint of olive oil, warmed. He vomited in the night liquid brown fæcal matter such as might be found at the ileo-cæcal valve. The enema returned, and was repeated without result, but some flatus had passed.

7th.—Urine, sp. gr. 1015, clear, acid, no albumen. Tongue moist; not much coated. Pulse 84, irregular, intermitting, small; stronger in the left than in the right radial artery. Has taken ice and milk. The bowel in the left flank is distended and resonant, but the right half of the abdomen and the upper half show no distension. There is dulness over the left colon behind, resonance over the right colon behind. Liver dulness not marked; some splenic dulness. Pain is referred to the umbilical region and left flank. Numerous raised dusky rose maculæ were observed over the thorax and abdomen anteriorly and posteriorly. He was ordered two ounces of brandy, half a grain of ipecacuanha pill, with one-third of a grain of belladonna and three grains of hyoscyamus, every six hours.

8th.—The enema was repeated in small quantities; came back in ten minutes. Patient is very thirsty. Tongue dry, red at tip, slightly coated. Pulse 96, weak. Has not vomited. Abdomen less distended, not tender; countenance and manner calm. There is no anxiety; no restlessness.

9th.—Has four times vomited brown fæcal matter. Tongue clean and dry; pulse weak. On consultation the use of the long tube was determined upon, as it was thought that a knuckle of intestine could be felt in the bowel high up, indicating an intussusception. The long tube was therefore passed up about nine inches, and small two-ounce enemata thrown up but not retained, flatus passing occasionally.

10th.—Had a bad night, with vomiting of fæcal matter; very thirsty. Tongue dry. Urine 1020, dark sherry colour, acid, clear; no albumen. Pulse 84, smaller; some pain with tormina, always referred to umbilicus and left flank. The long tube was introduced about seven inches; it seemed to enter something soft. On withdrawal the end was seen to be plugged and smeared with soft, greyish fæcal matter. Water was then thrown up, and returned with broken-up fæcal débris of a greyish colour. The enema, with one ounce of sulphate of magnesia in hot water, was repeated every four hours, but without further result. Consultation was again held, but as some fæcal matter was passing, and there was no urgency, judging from the tongue, the face, and the pulse, operative measures were postponed. The quantity of brandy was increased to four ounces.

11th.—Slept badly; had nausea, but no sickness. Pulse 100, small. Complains of tormina about the umbilicus; face pallid, somewhat dusky. Thirst great. Enemata given three times during the day without result.

12th.—Slept well; no vomiting.

13th.—During the night had pain in abdomen, with fæcal vomiting. Tongue drier, red at tip, coated on dorsum. Pulse 100, small. The enemata are now bringing away fæcal débris of a greyish colour. Examination of the rectum with the finger pushed up to its fullest extent revealed nothing, the finger returning smeared with greyish fæcal matter. The patient to take six ounces of brandy and fifteen minims of nepenthe.

16th.—Slept badly. Some fæcal vomiting and much pain. Cannot now bear the enemata.

17th.—A bad night, with pain, but no sickness. Voice weaker. Pulse weaker and smaller; very thirsty. Operative measures were again discussed, but it was considered unadvisable as the patient was too weak, the pulse being barely perceptible.

18th.—He was collapsed and unconscious, and died on the 19th, having gone twenty-five days with but very partial relief by the bowel. The difficulty throughout the case lay in determining the seat and nature of the obstruction. The bowel distension was clearly made out during the tormina to belong to the small intestine lying chiefly in the left flank to the left of the umbilicus; there was stomach resonance, but no colonic distension—in fact, there was more dulness than resonance over the descending colon; so that, coupled with the nature of the fæcal vomiting, the site of the obstruction was thought to be in the region of the ilio-cæcal valve rather than in the sigmoid flexure, where some dulness was detected. As regards the nature of the obstruction, at first a knuckle of intestine was thought to be protruding into the rectum, yet the want of anxiety, the apparent non-urgency of the case, the character of the tongue, pulse, and expression, negatived the idea of the bowel being seriously nipped or strangulated. It was concluded that the obstruction was mechanical, and as some fæcal matter was passing operative measures were postponed *de die in diem*. Lastly, the dusky, rose-coloured maculæ rather indicated a malignant condition of the liver.

The history of the patient, as furnished at a later date by his former medical attendant, was as follows:—He had been ailing more than six months with pain referred to his epigastric and umbilical regions, increased after taking food and relieved by vomiting or eructation of flatus. There was no hæmatemesis. The bowels acted very irregularly, constipation alternating with diarrhœa. Under treatment the state of things improved till two months ago, when again seen, the symptoms being the same in character, but more severe, vomiting more frequent from half an hour to three hours after a meal. Fæces very hard and knotty, passed with straining and tenesmus. He lost flesh. The medical attendant suspected from his appearance obstruction from malignant disease, but careful examination of the abdomen and rectum revealed nothing. He got worse. Copious enemata were given with no result, and finding that the vomiting was fæcal, and failing to get any results either from opiates or enemata, he was sent to the hospital under the idea that possibly he might be relieved by operative treatment.

Post-mortem examination.—Body emaciated, decomposing.

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[1] Munch. Medicin. Wochen., May 24th, 1890.
[2] Sajous, vol. i., p. 10.

Rigor mortis well marked. Thorax: Both lungs emphysematous at upper lobes; bases congested; adhesions from old pleurisy on left side. Heart empty, somewhat flabby, valves and vessels good; no atheroma. Abdomen: Small and large intestines distended with gas; very little fæces in small intestine. The large intestine from the ileo-cæcal valve to splenic flexure full of fæces of soft consistence; below this point no fæces, but gut was full of gas; no general peritonitis. Just to the right of the splenic flexure the colon was adherent to the greater curvature of the stomach, and at the outer border of the colon was a small perforation the size of a goosequil, through which fæces were oozing into the peritoneal cavity. At this point the bowel colon was constricted by the adhesions binding it to the stomach. On removing the stomach and colon a large ulcer on the greater curvature of the stomach was seen to open into the colon, one inch and a half in diameter; old. The edges had a reddened, granulating look, as if partially contracting under a healing process. The edges were not much thickened, and there was no evidence of cancerous deposit or growth. No glandular enlargement was discovered, and the rest of the stomach and intestines seemed healthy. Liver healthy; no gallstones; bladder full of bile. Kidneys: Perinephritic fat very abundant and adherent; capsules peeled well; numerous cysts in both, from the size of a pea to that of a pigeon's egg. Cortex narrow, and not well marked. Spleen healthy, decomposing; bladder empty; prostate large. The post-mortem examination cleared up the puzzle; the stercoraceous vomiting was a natural relief per os, and not per anum. Surgical interference would not have given relief, but probably the reverse; and had not the colon given way into the peritoneum, softened probably by the gastric juice, the man might still have been alive, and the puzzle more difficult of solution than ever.

ANCOATS HOSPITAL, MANCHESTER.

A CASE OF ANKYLOSIS FOLLOWING EXCISION OF THE ELBOW-JOINT, TREATED BY HYPNOTIC SUGGESTION.

(Under the care of Mr. HARE.)

MUCH has been written of late on the use of hypnotism in medical practice, and it has been somewhat extensively tried in various conditions widely different in character. The most beneficial results have been obtained in morbid states of the nervous system; but what will be the ultimate verdict of unbiased investigation upon its usefulness it is difficult to say. This case is a further contribution to those in surgery where its employment has been found of service, for such are, as a rule, difficult to treat satisfactorily without the use of chloroform or other anæsthetic. For the account of the case we are indebted to Mr. H. T. Mursell, senior resident surgeon.

E. S——, aged seventeen, was admitted to this hospital on August 22nd, 1890, under the care of Professor Hare, suffering from ankylosis of the elbow-joint of long-standing. Prior to admission various methods of treatment had been tried without success. On examination some thickening and enlargement of the joint structures were made out, but nothing of a very marked character. The limb was slightly flexed, and as regards flexion, there was almost absolute immobility; pronation and supination were also impaired, but to a less extent. Any forcible attempt at movement caused great pain. Under an anæsthetic there was still difficulty in obtaining movement, and as the limb was practically useless in its present position excision of the joint was decided upon, the operation being performed by Professor Hare on Aug. 25th. All the bony surfaces entering into the formation of the joint were removed, and on examination an exostosis growing from the articular surface of the head of the radius was found to be the cause of the condition. The limb was dressed antiseptically, but unfortunately did not heal by first intention. Passive movement was commenced as early as was deemed advisable, but the highly neurotic temperament of the patient rendered the efficient carrying out of this part of the treatment extremely difficult. Ultimately, in spite of everything, the limb became immobile at the site of the elbow-joint, and almost in the extended position. Under chloroform the limb was freely moved and adhesions broken down, but the patient was not amenable to passive movements, and ankylosis in the extended position again occurred.

With Professor Hare's sanction, Mr. Mursell tried what could be effected by hypnotic suggestion. The girl was easily hypnotised by causing her to gaze steadily at a retinoscopy mirror held in her hand, by the verbal suggestion of sleep, and by pressure on the frontal prominences. The patient responded to almost any suggestion which was made, and anæsthesia could be readily induced in any part of the body by verbal suggestion. She was told that she could move the affected arm without pain or difficulty of any sort, and readily bent the elbow sufficiently to touch the mouth with the hand when commanded to do so. She was told that this free movement would remain and be quite painless after she woke up. This post-hypnotic suggestion proved to be still existent and effective two or three days later. Movement was still somewhat imperfect, and she was again hypnotised about a week later. This time the same method was employed, and by verbal suggestion the patient was able readily to touch the back of the head with the hand, and to perform flexion, supination, and pronation without any difficulty. She was assured this condition would remain permanently when she awoke. From this time she had no difficulty in using the affected arm, and completely regained the efficient use of the limb. The patient was discharged cured on Nov. 18th, 1890.

Remarks by Mr. MURSELL.—The most rational explanation of the treatment is probably that the immobility following the operation was due partly to fibrous adhesion between the ends of the bones, a comparatively small portion of the humerus having been removed, that any attempt at movement caused pain, and thus the patient was afraid to make the attempt, and there was a mental impression of inability to move the limb By suggestion pain and the mental impression of inability to move the limb were removed, and the movements executed in consequence of this were sufficient to break down and overcome the fibrous adhesions. The unusual method of treatment and the success attending it must be my excuse for publishing a single case. I am indebted to professor Hare for permission to do so.

Reviews and Notices of Books.

Hypnotic Suggestion. By AUGUSTUS NICOLL, M.B. Edin. London: Henry Renshaw. 1891.

The Dangers of Hypnotism. By ST. CLAIR THOMSON, M.D. Lond. (Reprinted from the *Westminster Review*.)

THE stream of literature dealing with hypnotism shows no sign of slackening. It is not surprising that a subject of great intrinsic interest, and one which touches on the one hand psychology and on the other pathology and therapeutics, should invite the attention of many minds and provoke active controversy. Dr. Nicoll's short work is a plea for hypnotism by a convinced believer in its great therapeutic utility. He adopts the dictum of the Nancy school, *Tout est dans la suggestion*, and regards the hypnotic slumber as important only in heightening the susceptibility to suggestion. This is the doctrine of Bernheim and Liébeault, and represents a position that seems to command increasing support. Dr. Nicoll gives a short *résumé* of the evidence showing the power of suggestion and quotes largely from Dr. Luys and other authorities. He has nothing new to tell us, however, and meets most objections by the simple denial that they have any solid foundation in fact. He writes in a way that seems to imply that he considers the only value of drugs to lie in the fact that they "suggest" the idea of cure to the patient, and quotes with approbation Oliver Wendell Holmes's jocular remark that, "Were it not for the happy illusion that his useless or even deleterious drugs were doing good service, many a practitioner would give up his calling." If this view were correct, one substance—say, aqua pura—would be sufficient, if skilfully handled, to "suggest" the

idea of the cure of any and all diseases. With such remedies in our hands as opium, quinine, iron, mercury, rhubarb, ammonia, and many others, it is astonishing that such views should be seriously advanced by any member of the profession. Dr. Nicoll thinks the dangers of hypnotism have been "grossly exaggerated." He believes that about 80 per cent. of adults are more or less susceptible to hypnotism, but that "the greater number are only susceptible in a limited degree, sufficient for therapeutic purposes but simply proof against any criminal suggestion. The cases of which advantage could be taken by the unscrupulous are few and far between; they are those who fall into somnambulism with total forgetfulness on waking." In these latter remarks Dr. Nicoll departs from the teaching of the Nancy school, which he elsewhere seems to adopt. He quotes and adopts the statement of MM. Binet and Féré that: "We think it probable that when suggestion is employed in the case of a subject adapted for it, it is capable of producing all the actions connected with the nervous system"; also the dictum of Luys that "the organic tissues of internal vitality can be modified and various alterations produced by the influence of another person's words." We suspect these statements, while containing some truth, will ultimately be found to be a great exaggeration of one curious and interesting, but very partial, phase of human nature.

Dr. St. Clair Thomson condemns hypnotism, root and branch. For him it is itself a morbid state, "it is but the substitution of one morbid condition for another, a neurosis which can be brought about by certain means; in short, a disease to which the hysterical and neurotic are especially liable." It is unnecessary for us to point out that the exponents and advocates of hypnotism would traverse all these assertions. He admits that various pains and aches have been relieved by its employment; that the trembling of paralysis can be checked, spasmodic contractions loosened and paralysed limbs (in hysterics) restored to use; but he is convinced that the benefits are in nearly all cases fugitive, and quotes Dr. Lombroso of Leghorn in support of this view. Dr. Thomson condemns (not too strongly, in our opinion) the public exhibition of hypnotic phenomena, and says very justly: "They serve no therapeutic end whatever. ..... It has been remarked that the public might as well be admitted to see the contortions of chloroformed patients in the operating theatres of our hospitals. ..... The public performances do good to no one but the showman. It would be well were England (by the force of public opinion) to prohibit these dangerous, purposeless, and degrading performances, following the example of Italy, Switzerland, Portugal, &c., before she is compelled to do so by dearly purchased experience." Dr. Thomson concludes as follows: "Let us, therefore, be very chary of the employment of hypnotism; let it be used as a last resource, let it be done without altogether, if possible. Let us remember that its benefits are illusory, its subjects the most unequally balanced of human beings, its principles tending to retrogression, and its practice fraught with dangers which outweigh all benefits. .. ... Let each be helped to the more perfect study of himself, that he may take his own measure, and possess his soul in calmness. Let him learn to hypnotise himself by remembering that pain is frequently only nature's danger-signal, and that the ruin it points to must be attended to before it will cease; that not uncommonly it must be tolerated, since to check the pain would check at the same time nature's reparative process; that 'the labour we delight in physics pain'; and that pain borne for another, or for some good cause, ceases to wound. When this state of things—which is inevitable, if we believe in progress—arrives, hypnotism will be an extinct force."

Practical Manual of Diseases of Women and Uterine Therapeutics for Students and Practitioners. By H. MACNAUGHTON JONES, M.D., M.Ch., M.A.O. (Hon. Caus.), F.R.C.S. Irel. & Edin. Fifth Edition. London: Baillière, Tindall, and Cox. 1891.

IN the whole range of medicine and surgery there is probably at the present time no subject on which it is more difficult to compile a text-book than that of diseases of women. This is due in part to the circumstance that the opinions of leading gynæcologists on many points of pathology and treatment are diametrically opposed, while the rapid progress of the science and the enormous strides made in abdominal surgery in recent years have thrown such a world of light on abdominal and pelvic disease that views which were accepted a short time ago have at the present moment to be abandoned. Considering these difficulties, Dr. Macnaughton Jones is to be congratulated on the fact that he has produced a text-book which since 1884, when it first appeared, has gone through four editions. The present (fifth) edition shows, by the numerous changes introduced by the author, that he has spared no pains to include in his manual an account of the latest teachings and results in connexion with gynæcology. Those who believe in the value of therapeutics in diseases of women will find this work a storehouse of information.

There are a few points in which we think the book, when the next edition is called for, might be improved. In the first place, we trust the author will have then completely emancipated himself from the influence of the mechanical theory of uterine pathology, and that such phrases as "mechanical" and "obstructive" dysmenorrhœa will no longer appear. Further, the account of such "important displacements" as anteversion and anteflexion, with the numerous pessaries figured for their treatment, may, we think, with advantage be eliminated. If anteversion is in itself, even in its "greater degree," of such importance as to be treated with a pessary, then a support should be used in every case of early pregnancy. The observations (for which the author expresses his indebtedness to Mr. Bland Sutton) on the pathology of cysts of the ovary are excellent, but we consider the account of ovariotomy (seventeen pages) might have been somewhat extended. We think that in the next edition a new chapter on "abdominal section" might well be introduced, dealing more fully with that most important subject. This could easily be done without enlarging the book, if the author abridged the chapter on Gynæcological Electro-therapeutics, which now occupies twenty-nine pages, and eliminated the account of Diseases of the Mammary Gland, which is fully given in the ordinary text-books on surgery. A word of praise must not be withheld from the publisher for the elegant fashion in which the work has been issued.

Oysters, and all about them. By JOHN R. PHILPOTS, L.R.C.P. & S. Edin., J.P., &c. London: John Richardson and Co., Great Russell-street, W.C. 1890.

"THERE are thousands of individuals who have never eaten an oyster, who—from nausea aroused through a delicate organism or through disgust inspired and influenced by a too sensitive imagination—cannot bring themselves so far as to screw their courage to the 'sticking point' to venture the attempt; but, once made, the disgust is conquered, and shuddering antipathy becomes natural craving; the taste and the memory thereof continually haunt the appetite of the gastronomical convert, while he or she dreams of satisfactory indulgence in the near future." Upon such of his hearers does the author urge in his preface the desirability, "nay, the necessity," of habitually partaking of the esculent mollusc. It is quite certain that Mr. Philpots is himself a gastronomical convert, as well as an enthusiast advocating strongly for the wholesale consumption

of the delicate bivalve. The work, in fact, is professedly an effort to bring the medicinal properties and edible value of the oyster more into favour with the public (despite the increasing demand for it). With this object in view, he has taken upon himself to compile "a complete history of the titular subject, exhaustive on all points of necessary and curious information from the earliest writers to those of the present time, with numerous additions, facts, and notes subscribed by myself." The work is divided into two volumes, Volume I. containing 642 pages, Volume II. concluding on page 1370. In the introductory chapter the praises of the mollusc are loudly extolled, and in strains which seek to prove that "it is good for the unborn child, good for the child when two years of age, good for adolescent youth, good for manhood in its maturity, and finally not only good, but a strengthener to old age in its inevitable decay." Chapter I. suddenly introduces the reader to material of a more solid character, and is devoted to zoological remarks, followed up by an account of the history of the oyster, both ancient and modern. As evidence of the early acquaintance with oysters, we read of them being a Greek and Roman luxury, and how that the beds of Circeii and Lucrinus failed under Domitian, and that this resulted in the importation of Rutupians from Great Britain. Sallust (B.C. 50), the author justly observes, appears to have had a very low estimate of our ancestors, or else a high one of the oyster when he said: "The poor Britons! there is some good in them after all. They produce an oyster." Pliny has written about oysters, Cicero confessed to a predilection for them, while Horace avers his love for them. Chapter III., devoted to the modern history of the bivalve, recounts how oyster-eating was revived in England after the Norman invasion, and concludes with some humorous and poetical allusions made by the poet Cowper. Chapter IV. is entitled "What is an oyster"? while Chapter V. enters into the discussion of its structure. The "nature of the house" is next described in Chapter VI., and the birth, growth, and reproduction of oysters form the very interesting theme of Chapter VII. The varieties of oysters are considered in Chapters VIII. and IX., and the relations of the oyster in Chapter X. The perils of the oyster, the oyster in season, the oyster at home, and the oyster abroad, are discussed in the next four chapters; while a perusal of Chapter XV., on how to cook and eat oysters, will do much, if that is necessary, to tickle the palate of the daintiest gourmet.

In Chapter XVI. we meet with the curious heading, "The Oyster and the Doctor." Here it is interesting to learn that the chemical composition of molluscous animals includes compounds of modified albumen and chondrin; and an analysis of the oyster shows that it contains in 100 parts —of water 80·11, of dry organic matter (albumen and chondrin) 18·69, and of saline matter 1·2. In the saline residue, besides salt, traces of iodide of sodium are found. The liquor when examined by the chemist is found to contain carbonate of potash, sulphates of lime and magnesia, a small quantity of salt, a little osmazome, and other organic matters. The valuable nourishing properties of oysters for invalids are next dilated upon. Wise people, says this champion of the mollusc, eat oysters and eschew pills. Depression of spirits and other disagreeable feelings consequent on impaired digestion, he adds, soon cease to affect them, headaches disappear, a sour unhappy-tempered man becomes a pleasant and joyous companion, full of life himself, and inspiriting to those around him. The chapter concludes with a table on the guide to digestion, in which the time required for the digestion of various articles of food as compared with the oyster is given. Oyster culture in England, France, Germany, Italy, Holland, America, New South Wales, and in China forms the very interesting topic of the succeeding eighteen chapters. Statistical information, the curiosities of oysters, the pearl oyster, oyster fishery legislation, the conservation of deep-sea beds, artificial culture and cultivation, are chapters of equal interest. The supplement contains information on reproduction and embryology, the chemical constituents and the flavour of the oyster, enemies to oysters, over-dredging (contributed by Professor Huxley), the opening of oysters, chemical analysis of sea water, and a complete and useful list of the many species and varieties.

The article on the chemical constituents and flavour of oysters contains some data of interest and worthy of mention. Thus an analysis is quoted showing that 100 parts of oyster flesh contain 77 parts water, 21·21 organic matter, and 1·79 inorganic. The organic matter contains as much as 1·87 parts nitrogen, while the principal inorganic substances are salt and phosphoric acid with traces of iodine. These figures are compared with those yielded by fresh beef and the flesh of other fish to illustrate the value of the oyster as food. The liver and the generative organs contain glycogen and grape sugar; but probably the fatty matters, it is remarked, aid greatly in giving the characteristic flavour to the oyster.

The book is well worth reading, and, as might be gathered from this brief sketch of its outline, deals admirably with a mass of interesting information. The author very frankly confesses that the work is a compilation, but he certainly may claim to have succeeded in putting together almost all that may be supposed to be known on the subject, while the humorous and vivacious style characteristic of his own contributions, which serve as connecting links between the gathered facts, is calculated to arouse and maintain the reader's interest and attention from beginning to end.

OUR LIBRARY TABLE.

Studies on the Action of Dead Bacteria in the Living Body. By T. MITCHELL PRUDDEN, M.D., Director; and EUGENE HODENPYL, M.D., First Assistant in Pathology in the Laboratory of the Alumni Association of the College of Physicians and Surgeons, New York. New York: D. Appleton and Co. 1891.—In the first of these articles the authors have given a careful, but scarcely complete, *résumé* of the work done between 1886 and 1890 on the subject of Chemotaxis, especially as it is affected by the bacterio-proteins and the metabolic products of bacteria; they also draw attention to the action of certain other substances which may be said to be nearly allied to these bacterio-proteins. This forms an introductory article to a paper on the Action of Sterilised Cultures of Tubercle Bacillus, in which are given the results of a series of well-devised and carefully carried out experiments, from which they come to the conclusion that prolonged boiling does not interfere with its characteristic staining, and does not alter the morphology of many of the individuals of a culture, and that "bacilli killed in this way and introduced into the body can be readily recognised at their seat of lodgment, even after the lapse of many weeks." They also found that dead tubercle bacilli separated from most of their metabolic products have still the power of inducing marked effects on the tissue cells of the rabbit with which they are brought into contact, and that they are markedly chemotactic and distinctly pyogenic. They found that many of the dead tubercle bacilli disappear within a few hours or days, but that in the lungs and liver individuals or even small clusters of bacilli may remain clinging to the vessel walls, at first inducing no marked change, but later setting up proliferation and giving rise to multiple nodular structures which bear a strong morphological resemblance to miliary tubercle, except that in them there is no tendency to caseous degeneration, or any evidence of proliferation of the bacilli, but on the other hand a steady diminution in their number.

Handbook of Diseases of the Ear. By URBAN PRITCHARD, M.D., F.R.C.S. Second Edition, with Illustrations. London: H. K. Lewis. 1891.—The second edition of this work well justifies the intention of the author, expressed in the preface, of presenting a good practical manual on diseases of the ear. The illustrations are sufficiently numerous and well executed, and the appendix contains an ample and judicious selection of formulæ for local applications. A separate chapter is devoted to the important subject of naso-pharyngeal disease. While most of the recent advances in aural surgery have received due notice, we cannot but regret that so able an authority as Dr. Pritchard has not given us the benefit of his opinion upon such debated points as the use of pilocarpine injections in chronic catarrh and the value of electricity in tinnitus aurium and Eustachian obstruction. The various operations performed in America and on the Continent upon the membrane and ossicles in cases of old catarrh and tinnitus are not alluded to. The author expressly states in the preface that he wishes to avoid controversial points. We trust in the next edition of his work he will modify this resolution, and pronounce his opinion upon these and similar points. The book as it stands is excellent of its kind, and may be read with advantage by students and practitioners as faithfully representing the practice of aural surgery in London at the present day.

The Asclepiad. Third Quarter, 1891. Vol. VIII., No. 31. By BENJAMIN WARD RICHARDSON, M.D., F.R.S. Longmans, Green, & Co.—In this issue of his attractive periodical Dr. Richardson continues his essay upon Peroxide of Hydrogen, giving, in the first place, his experiences of its use in many and various affections, such as epilepsy, anæmia, mesenteric disease, diphtheria, intestinal affections, and eczema. He further points out that in either aqueous or ethereal solution it may be used as a differential test of pus from mucus, no evolution of oxygen occurring unless pus be present. He also makes some suggestions respecting its applicability in other conditions than those in which it has hitherto been employed. For instance, he thinks a trial might be made of it as a rectal injection (one pint of the 10-volume solution) in typhoid fever, with a view to decompose and oxidise the decomposing exuded products in the intestine. It might also, he thinks, be used as an injection into pulmonary cavities. A very interesting article on Old and New Physic should be read by every practitioner, hitting off as it does in trenchant style the fashions of the day, and in particular the craze for specialism. The author has also some keen remarks upon etiquette, and on the altered *rôle* of the consultant, from which we cull the following: "The 'Fellow of the College' in the past was the consultant in the strictest sense. ..... The general practitioner took his patient to the great man, held a *bonâ-fide tête-à-tête* with the most studied ceremony, and all was over. With less ceremony the same may take place still; but in this day patients, without a word to their regular attendants, rush to the consultant, or, as they say in the flattering of their words, to the 'fountain-head' direct, and the fountain-head will now receive them—it is as awful as it is true—alone. Sometimes a patient will go round to five or six fountain-heads on the same morning, without telling any one of them that he has already gambolled under another; and having got home with a prescription from each of the heads, will be guided by the opinion of his regular adviser, the chemist and druggist round the corner, as to the prescription most likely to do him good." A charming sketch of Matthew Baillie, the most successful of physicians, gives us an insight into the character and life-work of one who was notable for his sagacity, for his simplicity of character and right mindedness. An excellent autotype reproduction of the engraving of Hoppner's Portrait is given. In the Opuscula Practica Dr. Richardson deals in his usual happy style with such subjects as "memory as a test of age" (to which we referred in our last issue), "the physical action of odours," "molecular changes in nervous structure," and he returns to an old field of research in his paper on Voltaic Narcotism and Anodal Diffusion, incited thereto by a recent paper on the subject by Dr. Petersen of New York.

Taormina, Sicily: the new Winter Resort. Lake and Sison, Printers. 1891.—This little pamphlet, which is anonymous, aims at giving some information regarding a new claimant for the patronage of invalids who are compelled to winter abroad. Taormina (the ancient Tauromenium) is situated on the eastern shore of Sicily, thirty miles by rail from Messina, and at an elevation of 500 ft. above the Mediterranean. It faces east and south, and is well sheltered on the north by a range of hills. The temperature is described as equable, rarely exceeding 85° in summer and with a winter average of 55° to 60°. The soils rests on limestone rock and is very porous. "Taormina commands some of the finest views in Europe. The northern and eastern breezes from the Sicilian and Calabrian highlands and from the Ionian Sea are here cool and invigorating, while the snowy peak of Etna, which rises seventeen miles away, serves to break and temper the hotter winds from the south-west. The remains of the huge Roman theatre, at the seaward end of the town, afford a series of pleasant promenades, from which the scenery and the air can be enjoyed without fatigue." It is stated that a good hotel has been established, and arrangements are being made to secure a resident English physician.

Archives of Surgery. By JONATHAN HUTCHINSON, LL.D., F.R.S., Consulting Surgeon to the London Hospital, and late President of the Royal College of Surgeons. Vol. III., No. 9. London: J. & A. Churchill. July, 1891.—Mr. Hutchinson's quarterly publication is doubtless so well known to our readers that few words are needed to commend it to them. The publication maintains its freshness and vigour in a remarkable way. It is not only most readable, but worth reading from cover to cover. The cases referred to are well described, and tell effectively on the particular point under discussion. The range of subjects dealt with is so wide that all will find something specially interesting to themselves.

Archives of Pediatrics. Edited by WILLIAM PERRY WATSON, A.M., M.D. Vol. VIII., No. 93, September, 1891. J. B. Lippincott Company, Philadelphia.—The current number of this publication contains an interesting paper by Dr. Dwight and Dr. Roteh on the Neck and Head in Infancy, in which the general features of the skull of the infant and child, the nasal passages, naso-pharynx, and mouth are well described. There is a paper on the Treatment of Croupous Pneumonia in Children, by Dr. Dessau. We can endorse his view "that the greatest success will attend the rule to treat each case of croupous pneumonia individually." The other original communication is by Dr. Dorland: "Affections of the Respiratory System in Infancy and Childhood, compiled and arranged in tabular form." We doubt the value of such tables. Of what real importance is it to have eleven synonyms given for chronic catarrh of the naso-pharynx? The student's memory is surely burdened enough without having still further to recollect that "Tornwaldt's disease" is another term for chronic catarrh of the naso-pharynx. In addition to the account under clinical memoranda of a case of "artificial anus established spontaneously through the umbilicus," there is a very well selected "current literature" on Hygiene and Therapeutics, Medicine, and Surgery in their bearings on infancy and childhood; also, under the head "Foreign Correspondence," a letter from Paris, in which among other

matters the writer, speaking of the treatment of whooping-cough, gives "a hasty *résumé* of what is being done about it in Europe." He says that scillæ oxymel. is claimed to be the "best known treatment," but he admits that common thyme (infusion of thyme) seems also to be an efficacious remedy.

Our Unseen Foes, and how to meet them: Plain Words on Germs in relation to Disease. By A. WHEELER. Bristol: John Wright & Co. London: Simpkin, Marshall, Hamilton, Kent, & Co., Limited. 1891.—This *brochure* gives a brief account of the germ theory of disease, and deals specially with "consumption" and cholera germs, Lister's antiseptic treatment, and Koch's tuberculin. The book is exactly what it pretends to be—a simple exposition of some of the more interesting questions relating to the germ theory of epidemics and diseases. Here will be found descriptions of Metschnikoff's theories, the theory of the action of tubercle bacilli, with a short statement of the relation of bacteria to the formation of ferments, their relation to digestion, and some lessons that are emphasised by reference to Koch's, Pasteur's, and Lister's work.

The August and September numbers of the *Veterinarian* are alike interesting, both opening with Queer Horse Cases, by Horace Melville; then follow a number of other communications—reports from the Royal Agricultural Society of England and Royal Veterinary College, of the Central, Lincolnshire, and Midland Veterinary Medical Societies. In a paper on Variola Equina Mr. Fred. C. Mahon, M.R.C.V.S., comes to the conclusion that horse-pox (constitutional grease) is probably identical with cow-pox. He combats Dr. Crookshank's statement that it has been lost sight of in this country, as during the last eight or nine years he himself has had no fewer than three cases. He thinks that it is not so common in this country as it is abroad, and he is satisfied that it has been recognised from time to time as something quite different from human variola, but as nearly allied to cow-pox, and quite distinct from erysipelas, urticaria, or contagious pustular stomatitis. At the meeting of the Lincolnshire Veterinary Medical Association, Mr. G. B. Dickinson, F.R.C.V.S., read an address, in which he showed how intimately the development of surgical science was bound up with experiments on animals. He advocated most strongly a more careful study of physiology and pharmacology in the veterinary profession. Mr. John Malcolm's presidential address to the Midland Counties Veterinary Medical Association deals with some of the pressing questions of the hour. He claims that the Royal College of Veterinary Surgeons should be converted into a Royal Veterinary University. Other reports complete these numbers, which are full of interest not only to veterinarians, but to all those who take an interest in the welfare of animals.

New Inventions.

IMPROVEMENT IN HAGGERDORN'S NEEDLE HOLDER.

EVERYONE who has had occasion to use Haggerdorn's needle-holder must have been struck by its ingenuity. At the same time, no doubt, they have on many occasions, as I have done, been annoyed by the needle slipping when any extra strain has been employed to force it through tissues. To rectify this I suggested that a spur should be made to project from the end of the sliding bar, which should fit accurately into a notch on the opposing surface when pushed home; this is shown well in the accompanying engraving (Fig. 1). By this simple arrangement the slipping of the needle is rendered impossible. By comparing Fig. 1 with the engraving of the ordinary needle-holder (Fig. 2)

FIG. 1.

FIG. 2.

my meaning will at once be apparent. My wishes have been carried out in the most satisfactory manner by Messrs. Krohne and Sesemann.

FRED. BOWREMAN JESSETT, F.R.C.S.

Upper Wimpole-street.

A NEW PHIMOSIS DILATOR.

OFTEN when a phimosis is not very tight, or when parents object to circumcision, it is desirable to dilate the preputial orifice; and the dilators at present in use are either too cumbersome or stretch the posterior part of the prepuce in greater proportion than the orifice, because they start with parallel blades and dilate with a scissors-like action, in which case the orifice is scarcely, if at all, affected. The accompanying sketch shows a new dilator designed by me and made

by Messrs. Arnold and Sons, of West Smithfield, London, in which these defects are overcome. The blades start at an acute angle, and when parallel and inserted into the preputial orifice, the whole is stretched uniformly from orifice to back of the glans. The instrument has also a screw adjustment, by which the pressure may be exerted more gradually and evenly than by the hand alone. It is light and portable—desirable attributes when dealing with young children.

T. F. GARDNER.

Bournemouth.

THE "BROMPTON" BRONCHITIS KETTLE.

THESE kettles, patented by Messrs. Benham and Froude, of Chandos-street, Strand, represent a distinct improvement on the ordinary patterns of steam-producers for the benefit of sufferers from bronchitis. They are furnished with a hook at the back, by means of which they may be attached to the bars of the grate, so that danger of upsetting is avoided, and the steam is directed more effectually into the room. Moreover, the kettle can be used with a gas stove, and other minor advantages are claimed for it, such, for instance, as its capability of being used as a reservoir for hot water, which may be drawn off by means of a tap when required. The invention is likely to add greatly to convenience in the employment of this kind of appliance for the relief of persons suffering from bronchitic affections.

THE LANCET.

LONDON: SATURDAY, SEPTEMBER 26, 1891.

OUR colleagues and fellow subjects at the Cape are to be congratulated, or otherwise, on the passage of a long and complicated Medical Act—of more than a mere Medical Act—one contemplating the registration of not only medical men, but of all persons or classes of persons who may be considered as coöperating with medical men. The recent legislation provides in one Act for the registration of medical practitioners, apothecaries, dentists, chemists and druggists, midwives and nurses. We have already made one or two allusions to this important measure, and now that it has passed into law for an important colony, we think it right to note its principal provisions, especially those which directly affect the medical profession. It is noticeable that, excepting one or two provisions of the Act, it has had the support of the medical profession. Previously the profession had been regulated by an old ordinance, dating so far back as 1830, and it may well be that it had become inefficient, and indeed almost obsolete.

The first provision of this Act which calls for attention is the creation of a Medical Council, whose modest proportions may excite envy in those who think our own too large. It is composed of eight—seven medical practitioners and one dentist,—the dentist only voting in questions affecting his specialty, and having a vote at the election of president. Half the members are to be elected by the medical practitioners of the colony. Here, again, is a point to be noted in future legislation at home, where the direct representatives of the profession are only one-fifth of the whole Council and overpowered by various "interests." The Governor nominates three medical practitioners for the Council and the dentist. A strong attempt was made by Dr. SMUTS to eliminate the dentist from this clause, and, failing that, to require that he should be a dentist qualified as a surgeon; but in the end the clause was carried under the able protection of Mr. SAUER, the Colonial Secretary, whose charge of the Bill in its main form and details was very masterly. The question round which contention most raged was Clause 18. Mainly, this provides that henceforth admission to the profession shall be by a licence signed by the Colonial Secretary, on the recommendation of the Medical Council, who are to satisfy themselves on points of character, of identity, and of the right of the holder of any given diploma to practise elsewhere under it as physician, surgeon, or dentist. But the main point of dispute was in the latter part of the clause, which empowers the Colonial Secretary, within three months of the Act taking effect, to grant a medical practitioner's licence to any person (without diploma) of whose skill or qualification he is satisfied, and who shall have been in practice in the colony for twenty years. The hardship of this kind of provision to those who, in order to obtain registration, have undergone long processes of education and harassing examinations was pointed out. Dr. SMUTS moved its omission, but Mr. SAUER was inexorable. He gave, indeed, an undertaking that an ordinary quack would certainly not be admitted under this clause; others pointed out that the discretion would last only three months; and the clause passed, as did also a new clause giving right of appeal to the Governor to persons holding diplomas which the Medical Council should refuse to recognise. Mr. SAUER pointed out that this appeal was provided in England and other countries. This is so far true. But it is of very recent origin in England, and so far has never been exercised, and we hope never will be. It would be better not to create a Medical Council largely nominated by the Government, and to endow it with a power of judging diplomas, if this judgment is to be set aside and overriden by the Governor of the day, whose knowledge of diplomas could only be slight, and who might be constantly open to political and personal influences.

This new legislation at the Cape is noticeable as it affects midwives. Mr. SAUER was careful to oppose anything that would affect or even discourage uncertificated midwives, who, he maintained, could not be dispensed with in the present state of the colony. Clause 27 empowers the Medical Council to grant certificates of competency in midwifery to any female who either holds a certificate or a diploma as a midwife granted by any one of such examining bodies as the Council may prescribe or define, or who shall satisfy the examiners thereto appointed by the Council of her competence, skill, and fitness for the practice of a midwife's calling. Clause 28 gives the Council power to frame rules for "preventing the spread of puerperal fever and any other similar diseases." The curious part of it is that, while such rules are to be binding on medical men and certificated midwives, who are to be heavily fined or imprisoned for violation of them, they are not to apply to uncertificated midwives. If they violate such rules, the Act provides no punishment, and those aggrieved will have no resource but the common law. It certainly looks as if here the uncertificated midwives had an advantage over registered practitioners and certificated midwives, which surely is very questionable legislation. We can imagine that in remote regions of the colony it would be difficult to dispense altogether at present with uncertificated midwives; but surely it is they above all others who, in the interest of the poor patients they attend, need to have their conduct regulated by clear and precise rules.

Perhaps the most novel feature of the Act is Clause 30, which enables the Council to grant certificates of competence as trained nurses. But we have already commented on this subject. The penal clauses for procuring fraudulent registration need not detain us. The penal clause in cases where persons falsely pretend to be registered as medical practitioners, dentists, chemists, *and who practise as such without a licence*, is more stringent than our Clause 40. It imposes a fine not to exceed one hundred pounds, and in default of payment imprisonment, with or without hard labour, for a period not exceeding six months.

As we have said, the Act is not a mere Medical Act. It provides a Board for the admission of persons as chemists and druggists. This Board can appoint a Board of Examiners and frame rules of examination for such purpose. The

clauses are drawn very much on the lines of those of our own Pharmaceutical Act, but the Board includes one member of the Medical Council. This section of the Act includes a schedule of poisons within the meaning of the Act which are only to be sold under restrictions.

While recognising the ability with which the discussion of these questions has been carried on in the Cape Parliament, we can only express the fear that too much leniency has been shown to unqualified practitioners and too little trust reposed in the Medical Council created by the Act. Such legislation imposes heavy obligations on medical men, and it should recognise a corresponding claim on their part to be trusted in the regulation of their own profession.

IT is to be feared that the disaster which has already resulted from the terrible floods in Spain will not be the only serious consequences of that calamity. The direct mischief which has been brought about is bad enough. At first we heard of the ruin and havoc wrought at Consuegra, but it now appears that the area over which the storms and floods have operated is far wider than the limits of that town. In Consuegra the death-roll is already known to amount to nearly 1800; but in addition to this some 4000 head of cattle brought there for a fair have perished, and the odour of decomposing carcases is perceptible at long distances from the town. The surviving population are to a large extent without homes, food supplies and clothing are wanting, the crops have been ruined, and even immediate help is not forthcoming because the means of transit, whether by road or by rail, are, or were at the beginning of this week, practically impassable. All this would be serious enough. But if the misery is great at Consuegra, it is in some respects even more acute in other places, and notably in those which are more remote from the capital. The storms and floods have wrought great destruction in the provinces of Murcia, Saragossa, Jaen, and Malaga; and Tembleque, in the province of Toledo, is almost entirely cut off from communication with neighbouring places, being all but entirely surrounded by water. In many localities the inhabitants are compelled to sleep in the open air; the food supplies which are available do not suffice for the most pressing and immediate wants, and a feeling of hopelessness has come over many thousands of people.

But if the present difficulty were alone in question the mischief might be largely repaired by the generosity which is being displayed by the Queen Regent, the Ministers, and all classes of the people. This is, however, unfortunately not the case. Not only have food-supplies which would have served for the coming winter been destroyed, but the country, which has been and is still lying under water, is in some places rendered unfit for agricultural pursuits, and in others it is covered with deposit which can hardly fail to be a cause of disease. Such conditions operating on a people suffering under deep mental depression, and weakened by exposure and want of sufficient food, have more than once been followed by disease and by a loss of life which in the end have been more serious than the direct effects of the original disaster. Some such outcome is looked forward to with anxiety by many, and whether the watershed of the Amarguillo, or the towns and villages lying along the Tagus, the Guadalquivir, and other smaller rivers be considered, the advent of epidemic disease is anticipated as one of the gravest complications of the disaster.

The precise disease which is feared is not specified, and it is by no means easy to explain in advance what the conditions may be that are likely to result in the advent of epidemic disease. Starvation and the huddling together of the destitute have often been associated with typhus and with relapsing fever, and those attacked have been placed in just the very circumstances that favour the spread of such infections, and that tend to a heavy mortality. Whether the contagia of those diseases arise altogether *de novo* under these conditions, whether they are the result of the development of special and specific qualities in organisms that might otherwise have remained impotent for mischief, or whether these contagia are always present and only on certain occasions, amongst which such disasters must be numbered, find the means for propagating themselves, are questions that could not be conveniently discussed in the present connexion. But it is certain that such contagia do at times cause heavy mortalities in sequence to events such as those which have taken place in Spain. The actual cause of death has varied much in similar circumstances. It has at times been one that has been least anticipated; for, in truth, when epidemic disease of any sort gets an entry into such a community, it generally leaves its mark deeply graven upon the people. In certain tropical countries, to which some portions of Spain bear a near resemblance, paludal fevers of ill-defined type have more than once followed on floods such as those which we are now considering, and the more persistent the resulting saturation of the soil the longer have such diseases been maintained. Indeed, the anticipations which find their way daily into the press to the effect that disease may be expected to follow in the wake of the disaster are, unfortunately, not without some substantial ground, in so far as precedent is concerned.

How far these anticipations will be realised depends very much on circumstances. The cessation of the storms by which the area of mischief is being gradually extended is earnestly to be hoped for, and once this is brought about every effort should be made to bring to the people such food, clothing, and means of shelter as will not only relieve their instant necessities but will instil into them a feeling of hope that will do more than anything else to stave off the dreaded consequences of disease. We hear of rivers that have changed their courses, of lands so flooded that there seems no outfall for the water, and all this points to the need of engineering works to relieve such land as must be occupied and tilled from its present abnormally saturated condition; and it may be that some of the money collected to relieve the distress could hardly be better spent than in works which, whilst benefiting the country and the community, will at the same time give occupation and wages to those who are now looking forward with blank despair to the future. Such measures of prevention will probably be of more effect than any that can be taken on the spur of the moment by the Director of Public Health, who is stated

to be visiting the afflicted districts with a view to the adoption of hygienic measures.

But it is to be hoped that the lessons of 1878, of 1884, and again of 1891 will not be allowed to pass away without some permanent effort being made to prevent the recurrence of a like disaster. Measures are unquestionably needed for the storage, if only temporarily, of storm waters; but, above all, the replanting of the country, and especially of the slopes of the river valleys, is called for. If this be properly carried out under scientific and skilled advice, a much more equable distribution of rainfall may be expected both as regards time and locality, and that fatal and sudden rush of the accumulating rainfall down hill-sides that have been stripped of their vegetation will be hindered by a growth of trees which will in turn also bring prosperity into the reafforested districts. Spain is not alone concerned in this question. Portugal is to some extent now suffering with Spain, Italy has often suffered in recent years, and in our own country much good might be done to agriculture and to the community generally by an intelligent planting of districts that have been denuded of their woods and growing timber.

IN the discussion of the various complicated problems of the relations of climate to health, we are accustomed to consider chiefly the indications afforded by disease. This is no doubt the main and most obvious point of view, but it is not the only one of real importance. We might consider the question, for example, from the point of view of race; or, again, we might take age as our starting point. We propose to look at the latter for a few moments, the problem before us being to indicate some of the leading principles which regulate the adaptability of climate to the varying conditions of health and disease in so far as these depend upon, or are materially modified by, the age of the individual. The problem is one of some interest, and so far from being *en l'air*, is really a practical one, and admits of some fairly definite rules and principles.

As regards childhood, we may safely lay down the general laws that children respond more readily to change than their elders; that they commonly do very well at the seaside; that they often benefit most signally by a sea voyage, and do not suffer severely from the discomforts attending such a voyage; that they enjoy and benefit by a country life; that they suffer more than grown people from the depressing influences of city life, and that, as a rule to which there are probably many exceptions, they do not specially benefit from the climate of high altitudes. Such, in brief, seem to be the leading principles of the climatology of childhood and early adolescence. That children love the sea and that the sea very generally suits them are familiar facts of observation. The explanation is to be found in such considerations as that children are commonly in a condition to bear stimulation, not having used-up nervous systems; that they are attracted by the sea and its products, and by the amusements natural to the seaside, and that some of their commonest ailments, such as struma and rickets, are among the affections most amenable to marine influence. It is very striking how happy children are, as a general rule, on shipboard; how readily they accommodate themselves to their novel conditions of existence; how little they suffer from sea-sickness or the other inconveniences of life at sea; how deeply they are interested by the rather monotonous round of sights and sounds, and how astonishing is frequently their progress towards health under such conditions. The enjoyment and benefit which children derive from country life do not call for comment. That city life, especially under the insanitary and unwholesome conditions prevailing in many of our large centres of population, is prejudicial to the normal and healthy development of the child is a fact sufficiently obvious, but for which it is difficult to find an adequate remedy. The question is too large to be discussed incidentally in this connexion, but it is not too much to say that the great problem in hygiene which the twentieth century will be compelled to solve will be how to reconcile the growth of great cities with the preservation of the national health.

That the mountain climates are not very suitable for children is probably a true general principle, but one upon which it would be rash to insist too rigidly. The explanation would appear to be that, upon the whole, the general conditions of climate and life which exist at high altitudes, although highly stimulating in certain morbid conditions, do not promote in a similar degree normal physiological development. We must admit, however, that this point has not been at all adequately worked out, and that any hard-and-fast rules are at least premature.

The climatology of old age may be roughly summed up as follows. Elderly people in general do well with equability and moderate warmth; they bear cold badly; they benefit by abundant sunshine. The high altitudes are very rarely suitable to them, and are usually decidedly injurious; they do best in level places, where there is abundant shelter. They may or may not benefit by the seaside or a sea voyage, but these measures cannot be recommended with at all the same confidence as in the case of children. Most of these principles become almost obvious upon a little consideration. The failing vitality, by which we mean impaired vigour of circulation, assimilation, and excretion, which characterises advanced years, and the special maladies most frequent at that time of life, such as rheumatism, cardiac disease, gout, and renal affections, serve to determine the climatological problem. Moderate warmth with fair equability, abundance of sunshine with adequate shelter, and level walks, evidently meet the most obvious indications called for by these affections. The unsuitability of the mountain climates to the aged is due partly to the cold, which depresses those in whom the circulation is feeble either constitutionally or as the result of age, partly to the sudden changes, which are especially trying to the rheumatic or the subjects of renal disease, partly to the impossibility of obtaining sufficient easy exercise on the level ground, which is a serious difficulty in cardiac cases. A sea voyage, though by no means out of court at any period of life, is often a doubtful experiment for the old, who do not take kindly to such a revolution in their daily habits as life at sea necessarily involves, who often suffer severely on shipboard from sea-sickness and insomnia, and who may not possess sufficient elasticity of spirit to rise above the depressing influence of separation from home and friends. The elderly constitute

the class most likely to benefit by the various spas, which now enjoy at least a sufficient vogue. The effect of mineral waters is in most cases to promote elimination, and this is often the first indication in the case of those advanced in years. It should never be forgotten, however, that vigorous eliminative measures are a great drain upon the system and may easily be abused.

We hardly need to say, in conclusion, that in nothing is the superior recuperative power of youth over age more apparent than in the greater readiness and certainty of its response to change of climate. We can confidently recommend to the young measures which we suggest dubiously to the old. In fact, change is rarely at fault in the earlier years of life, whereas it is very often a doubtful, and sometimes a most hazardous, experiment for the aged. In the case of the latter we need to have solid reasons and tolerably definite prospects before we induce them to give up the comforts and safety of home for the uncertainties of travel.

AN exceedingly interesting memoir by Mr. C. S. MINOT, entitled "Senescence and Rejuvenation," appears in a recent number of the *Journal of Physiology*. Mr. MINOT'S experiments were conducted upon guinea-pigs, amounting in number to several hundreds, and were extended over several years, and the problem he set himself to solve was to determine the changes which occur in the passage from youth to old age, and to explain the essential nature and the real cause of that gradual loss of the functional powers of the organism which lead first to senescence and ultimately to death. He selected guinea-pigs because, amongst other advantages, they are inexpensive to purchase and keep, bear confinement well, and are but little liable to disease. They were kept during the summer months in spacious pens in the country, and in winter in large boxes in warm, well lighted and ventilated rooms. To measure the growth the weights were taken of the growing and adult individuals, the weight being, in his opinion, the only available measure for the whole animal and the only one permitting comparison between different animals. Each animal was accordingly weighed every day from birth up to the fortieth day, then every fifth day up to 215 days, and after this period every thirtieth day. In regard to the conditions at birth, it was found that the number of young in each litter varied from one to eight, but litters of one, two, three, and four were by far the most common, and he thinks that two may be regarded as the normal number which corresponds to the number of teats. The number of young tends to increase with the number of previous pregnancies, and is greater also in warm than in cold weather. In regard to sex, of 1000 guinea-pigs born, 456 are females and 544 males, but he gives reasons for thinking this is a wider difference than really exists. In the spring and summer there is a relatively greater tendency to the production of females. The average weight of a guinea-pig at birth is about seventy grammes, and Mr. MINOT points out the remarkable circumstance that a growing guinea-pig may bear young without impeding its own growth. The determination of the period of puberty is not easy to arrive at, but probably occurs about the fourth or fifth month of age. The average duration of gestation is sixty-seven days, but is somewhat less when the litter happens to be large. From a series of measurements, which embrace a very large number of observations, affording abundant evidence how laboriously M. MINOT must have worked, he constructs graphic curves, which show that at birth the male is slightly heavier than the female; but the female immediately makes a marked gain, owing to its having a less post-natal retardation than usual, and it is not until the twenty-ninth day that the male, weighing 203·8 grammes, catches up the female, weighing 203·7. After the first month to the end of the first year the males at every age are, on the average, heavier than the females. Continuing these observations through the second year, he finds that when the two sexes have attained adult life the female surpasses the male. Mr. MINOT points out that the curve of growth in guinea-pigs of both sexes differs to a marked extent from the curve of human growth. This curve, as determined by H. P. BOWDITCH, always exhibits a great fluctuation associated with puberty, as there is a pre-pubertal acceleration and a post-pubertal retardation, both modifications being most frequent in females. He thinks that the diminution in rate of growth which occurs in guinea-pigs of both sexes, beginning about the end of the fourth month, and which is greater in amount and longer in duration in the female, corresponds to the post-pubertal retardation of the human species; and it would clearly be interesting to determine whether such double pubertal fluctuation of growth occurs in all mammals. Mr. MINOT'S observations afford extensive materials for the study of individual variations. Each animal appears to strive to reach a particular size; but whilst some grow for a time too rapidly, other grow for a time too slowly; but the tables show, and this is supported by PAGLIANI'S observation, that if an individual grows for a period excessively quickly, there immediately follows a period of slower growth and *vice-versâ*. Those that remain behind for a time, if they continue in good health, make up the loss soon after. Hence he has found that to permanently dwarf a guinea-pig requires an astonishingly prolonged interference; a young guinea-pig may lose one-third of its weight from a severe intestinal catarrh, and yet make it up subsequently. An interesting question also arises in regard to the influence of gestation upon growth. It has been usual amongst physiologists to accept the view that the functions of nutrition and reproduction are opposed to each other, because reproduction makes such a demand upon the parent for material; but this proceeds on the assumption that before reproduction the organism must be growing nearly or quite up to the maximum of its assimilative power. MINOT'S and EDELFSEN'S and HENSEN'S experiments, however, all show that this is an unwarrantable assumption, and that in point of fact female guinea-pigs grow about the same, whether they have young or not during their own growing period. Immediately after delivery, however, there is a great and very rapid loss of weight, which continues for several days. The diminution proceeds at a slower rate for about three weeks, after which the recovery of weight begins. Lastly, the process of growing old, Mr. MINOT shows, is a very complex affair. One of the most characteristic features is the loss of the power of growth; and he calls attention to the misapplication that has been made

of the expression "rate of increase," owing to the fact that the actual absolute increments of equal successive periods have been taken as the index, whereas, as he insists, if the absolute increments are constant, the rate of growth must necessarily diminish. If, for example, an animal adds, say, ten grammes weekly to its weight, its rate of increase is clearly diminishing, for were it equal, it would add ten grammes and the tenth of ten grammes in that period, and so on in compound proportion. On this basis M. MINOT arrives at the conclusion that in guinea-pigs there is a progressive loss in the power of growth, beginning almost immediately after birth, and raises the question whether in all living beings there is not a certain impulse given at the time of impregnation which gradually fades out and when exhausted ends in death.

Annotations.

"Ne quid nimis."

THE EASTERN HOSPITALS.

AT the ordinary fortnightly meeting of the Asylums Board, held last Saturday, at which the report of the committee of the Eastern Hospitals came up for discussion, a letter was read from the assistant medical officers, Messrs. Mann and Morrice, on the subject of the recent decision of the Local Government Board anent Dr. Collie's resignation. The letter, which was addressed to the chairman of the Board, suggested in respectful terms that, in so far as the charges against the administration of the hospital were held to be proved, Dr. Collie alone was held up to blame, and that though from the official standpoint the medical superintendent is held responsible, nevertheless they felt that if exception be taken to the detailed working of the institution, they, as his agents, should be included in the censure. They also contended that the inquiry was not a fair test of the working efficiency of the hospital; that points open to criticism had received an undue prominence, whereas circumstances that reflected credibly on the hospital were more or less ignored; and, moreover, that if the inquiry into the administration of the hospital had been in any sense a complete one, it would be found that they had more reason to be proud than ashamed. Although this action of Messrs. Mann and Morrice appears to be mainly instigated by a spirit of loyalty towards their chief, and as such is a graceful act, we can hardly blame them for adopting a position of self-defence, which is evidenced by the concluding terms of their letter. "We think the verdict tells unfairly against those at present connected with the hospital. The public will only remember the plain fact that our chief was called upon to resign; they will not remember that the verdict was based upon the affair of 1885. Those who know anything of the medical world will understand that neither we nor the nursing staff can ever free ourselves from the stigma." There is a good deal of truth in this, and although the decision of the Local Government Board mainly affects Dr. Collie personally, yet all connected with the hospital are affected by implication. By a resolution of the Asylums Board the whole matter was referred to the General Purposes Committee for consideration and report. We are therefore ignorant as to what further action will be taken. We think the committee will do well to petition the Local Government Board to institute a new trial before giving effect to a decision which seriously affects the interests of so many of its servants. In this case we may reasonably hope that the court of inquiry may be constituted on a less anomalous basis than the last.

THE HIGHER DENTAL DIPLOMA.

IT is a healthy sign, and one indicative of progress, that the question of the desirability and even necessity of a higher diploma in dental surgery attracts more and more attention each year. The movement commenced, we think, in 1888, when a resolution proposed by Mr. Brownlie was passed by the Scottish Branch of the British Dental Association, at the time when the Scottish Universities Bill was under the consideration of the House of Commons, in favour of power being given them to grant a qualification in Dental Surgery other than the L.D.S. Since then various schemes have been proposed. While great unanimity exists as to the desirability of placing a further qualification within the reach of the dental student who aspires to, and is able to obtain, it, yet opinions differ as to whether it should be an additional medical qualification or a higher diploma or degree in dental surgery. Amongst many papers and letters on this subject the two most representative are probably those read before the British Dental Association by Mr. Campion last year and Mr. Ackland last month at the annual meeting held in London. The former writer, while admitting that dentistry is a branch of general surgery, thinks that it is not practicable or possible for it to be made compulsory for the dentist to have a medical as well as a dental qualification, owing to the long curriculum that would be required. It would be impossible to pass those examinations in the minimum time of four years without serious detriment to one or the other, probably at the expense of the practical work at the dental hospital. "To me," he says, "it seems, on the ground of time alone, and omitting all consideration of expense, the conjoint diploma is not suited to meet the want of a higher qualification for dental students," and he advocates a higher qualification in dentistry which shall exact a deeper knowledge in medicine and surgery than the L.D.S., a more intimate acquaintance with purely dental subjects, and a more thorough ability in practical dental work. On the other hand, Mr. Ackland, with whom we agree in the main, argues that the L.D.S. has served the purpose of the dental profession for the past thirty years, and in the list of those possessing that diploma are to be found the names of those most honoured in the profession. The L.D.S. is second to no dental diploma in the world, and he is of opinion that it will be better for the dental profession as a whole to keep one uniform standard for all its members to pass before admitting them to the register. The great majority even of the educated public has not learnt the meaning of the three letters "L.D.S.," and yet it is sought to make "confusion worse confounded." Further, he says, "This second diploma would sever more than ever the dental from the medical—in fact, I maintain, would be a distinctly retrograde step; while, on the other hand, I think all those who obtain a medical diploma are truly proving the assertion that dentistry is a branch of surgery."

AN ENORMOUS OVARIAN CYST.

IN a paper published in the *Medical Mirror* of St. Louis, U.S.A., for August, Dr. H. H. Madd, amongst other interesting abdominal cases, gives the account of and illustrates an ovarian tumour which attained unusual size. He first saw the patient, a mulatto woman, aged forty, in the year 1880. There was then a small cystic tumour in the left side of the pelvis. This rapidly enlarged, till, at the end of 1882, the circumferential measurement was sixty-two inches. In July, 1883, she was still able to move about, and the measurement was seventy inches; in

March, 1884, this was seventy-six. In June, 1884, she agreed to be tapped. She was placed on her side near the edge of the bed, and 160 lb. of dark thin fluid removed with a trocar. She died in July of exhaustion. At the necropsy the abdominal wall was thick, the tumour adherent throughout in front and at the sides. The adhesions to the transverse mesocolon, to the omentum, and to the small intestine were firm and extensive. The vessels of the omentum and of the parietes which ramified over the surface of the tumour were its chief source of nutrition, being large and numerous. A strong band of tissue connecting it with the uterus was about an inch thick. The left ovary and broad ligament were lost in the tumour The fluid which had reaccumulated in the cyst was very similar to that withdrawn by tapping, except that it was of brighter colour. The cyst wall is supposed to have weighed from 12 to 15 lb., and the total weight of this tumour was at least 175 lb., according to Dr. Mudd's calculation. If these calculations are accurate, this is probably the largest cyst of the kind on record. We published earlier in the year (vol. i. page 999) a short account of a case which had been under the care of Dr. Cullingworth. The total weight of the tumour and its contents, including that of the fluid removed on the previous day, was 154½ lb. The weight of the patient was much less than this.

A GOOD EXAMPLE.

THE *Hornsey and Finsbury Park Journal*, in a leading article, heaps just praise on the authorities of the Great Northern Central Hospital for its method of dealing with patients who are not entitled to hospital relief. A working man earning 35*s.* a week, and with no family, sustained a bruise of the shin, and after several days went for hospital treatment. On its being explained that his case was one for treatment by a private practitioner, he defended his resort to the hospital on two grounds—that he expected better treatment at the hospital, and secondly, that he subscribed to the hospital, which was afterwards explained to mean that he contributed at his workshop to the Hospital Saturday Fund. The case is a valuable one as illustrating the common abuse of hospitals by thousands—a fact which is hindering the generosity of those who would give freely to really fit cases. The Great Northern Central Hospital has determined to ascertain the fitness of cases, and its action in such instances as the above shows the carefulness with which it acts. The man was examined by an honorary officer of the institution, and his circumstances were ascertained before he was pronounced unfit. We have long pointed out the shabby advantage that many take of their contribution to charitable funds. We cannot doubt that working men will see through such meanness as is here exposed, and insist on their contributions being used for the relief of the needy and those whose cases are of an exceptional character. The system practised in the Great Northern Central Hospital deserves imitation by others.

MEDICAL OFFICERS OF HEALTH AND WATER ANALYSES.

WE are not unfrequently referred to in connexion with the question whether it is the duty of a medical officer of health to perform analyses of water for his sanitary authority. In a letter which we publish in another column, p. 746, the same question comes before us again, together with a number of incidental but allied questions, and we think that the subject can be most usefully dealt with in a general way. Dealing with the question of duty, we can most conveniently quote an answer which the Local Government Board addressed to a medical officer of health who devotes his whole time to the duties of his office. The answer was thus: "While it is the duty of the officer to inform himself as to the character of the water-supplies in the district, and for this purpose to use, where needful, the ordinary chemical tests of the purity or otherwise of the water, he is not required to make a quantitative analysis of the water. If this is required, such analysis should, in the absence of any special arrangement between the sanitary authority and the medical officer of health, be procured from an analytical chemist." And in case of a desire to impose special duties on a medical officer of health, the same letter concluded by saying that "the duties of the officers will be those prescribed by the Board's Order of 8th March, 1880, including the observance of such lawful orders and instructions as may be given to them by the Sanitary Authority under Article 18 of that Order." Thus, quantitative analyses cannot legally be demanded of a medical officer of health for the salary which he receives for performance of those duties prescribed under the Order of the Local Government Board; and if such analyses are required a separate arrangement must be made for them between the authority and the medical officer of health, provided both are willing to enter into such an arrangement, and any fees so paid would not come within the salary for which one-half can be repaid by the County Council, the duty in question being outside those attaching to the office of the medical officer of health.

NERVOUS SEQUELÆ OF INFLUENZA.

A FEW months ago Dr. Archibald Church of Chicago read a paper on this subject before the Chicago Medical Society. After alluding to the difficulty experienced in deciding in any given case whether the nervous prostration or other condition which followed influenza was really a consequence of it, and in many cases, where a neurasthenic condition was met with, whether the patient or his friends were correct in ascribing it to a preceding attack of influenza, of which the evidence was scanty, he pointed out that a few representative German, French, English, and American publications furnish reports of as many as 400 cases showing the intimate neurotic characters of the epidemic. He has also examined the official mortality records of Chicago for some years past. In the years 1888 and 1889 the proportion of deaths from alleged nervous diseases to the number of deaths from all causes was very nearly 16 per cent. This ratio was maintained in 1890, and during the first four months of 1891, when there was a great increase in the number of deaths from chest conditions, showing that the nervous system was as actively and fatally affected as the chest in the proportion which it usually bears to the general death-rate. Thus in March and April, 1891, when the death-rate rose to 34 per 1000, the deaths from nervous diseases more than doubled their average in previous years. The great increase is found mainly under the items "meningitis" and "convulsions." With regard to the occurrence of mental disturbance after influenza, Dr. Church found that, out of 874 admissions into three State hospitals for the insane during the eighteen months preceding May 1st, 1891, forty-five were cases in which influenza was the alleged determining cause of the mental disease, although in most of the cases other causes were at work. An examination of lunacy records also of the Cook County Court showed, in comparison with similar periods in the year 1889, an increase in the number of admissions following the epidemic of 1890, and again during the prevalence of the disease in the current year up to May 1st. The conclusions arrived at were as follows:—That there is a distinct nervous variety of influenza; that the poison of influenza has a marked action upon the nervous system, which may give rise to immediate acute manifestations or to remote and persistent conditions; and that in the predisposed, the disease is competent to cause marked excitement or great depression of the nervous functions.

BABY FARMING.

MR. JAMES M. JENNINGS, the East Riding coroner, held an inquest lately on the body of a nurse child, illegitimate (named Greaves), at Watton, near Driffield, which had been placed under the care of a widow, Mrs. Lamb, at 4s. a week. There were two other children so placed with Mrs. Lamb, who had no licence. All slept in the same bed with her. One morning, on waking up at seven, she found the child Greaves dead. No medicine had been given, and no medical man had been consulted. Dr. Bell was called to make a post-mortem examination. He found there had been severe and extensive eczema of hips, thighs, &c., that must have been apparent to anyone, the flesh being red-raw. He found no internal cause of death, and assumed that the child had had a convulsion and died. Such a child needed much medical care and proper diet, the absence of which would tend to bring about what happened. In the end the jury found that the child had died from convulsions, hastened by surroundings. The coroner observed that Mrs. Lamb had laid herself open to six months' imprisonment for having children without a licence. But neither she nor the mother was censured.

DRUNKENNESS IN LIVERPOOL.

ACCORDING to the writer of an article on Drink and its results in Liverpool, Dr. Carter took a decided part as one of a deputation to the city magistrates some months ago. He dwelt with emphasis on the cost to the city, in gaols, workhouses, and hospitals, of the enormously excessive trade in alcohol. Some years ago two great evils were tackled with much effect—gambling-houses and houses of ill fame. But 1857 public-houses remain and 241 beerhouses. And some of the results are as follows: 7000 habitual drunkards exist in Liverpool. Last year 15,054 persons were arrested in the streets for drunkenness. According to the city coroner, 110 persons died in the same year from excessive drinking, 174 children were overlain in bed, and 21,000 cases of personal injury and disfigurement, arising in nearly every instance from drink, were treated at the hospitals and public dispensaries.

THE HOSPICE OF THE GREAT ST. BERNARD.

THIS asylum for the Alpine wayfarer (7609 feet above the sea-level) is said to have been founded A.D. 962 by St. Bernard of Menthon, while, according to some authorities, it rose a century earlier, under Charlemagne. Neither saint nor Emperor is likely to make good his claim, as the archives of the hospice have been completely destroyed in two successive conflagrations. But, like other Christian institutions, it had undoubtedly a pagan predecessor. The Romans on the self-same spot built a temple to the Pennine Jove, and that, in turn, occupied the site of a still earlier shrine of prehistoric antiquity. The truth is, the Alpine passes were in common use from the remotest ages,—the Christian world treading the same route which had been trodden by the Romans, who also availed themselves of the track made by the aborigines. At its highest point the tutelary deity had his place of worship, and this was served by the local priesthood, who rendered assistance to the distressed or ailing traveller and received votive tributes in return for its good offices. The existence of a temple of Jupiter on the spot, with its staff of priests, is well known; and the relics that have turned up near it attest its uses to have been similar to those of the present hospice. A discovery of importance has just been made in its vicinity—a bronze statue in excellent preservation of Jupiter himself. Its artistic value is very great; its height forty centimetres. At the same time other treasure-trove was brought to the surface, including a number of medals and a statuette of a lion measuring sixteen centimetres, also of fine workmanship. These are now the property of the monks, and will attract to the hospice a public more able to keep them in funds than the proper recipients of their kindness. Sad to relate, the revenues of the monastery, heavily drawn upon by the travellers (from 16,000 to 20,000 annually) who throw themselves on its bounty, are diminishing, the contributions left by these comfortably accommodated guests being miserably below what, in the majority of cases, they can afford. The heroism of the monks should be remembered by the well-to-do holiday visitor. They begin their career at the age of eighteen or nineteen. After fifteen years' service the severe climate has made old men of them. For eight or nine months out of the twelve they see none but the poorest wayfarers, when the cold is intense, the snow lying deep, the danger from storms incessant and fearful. Their sole companions are the dogs, whose keen scent has guided them to the snow wreath under which the buried traveller has so often been rescued and brought to life—dogs like that noble fellow "Barry," who saved forty men in his time, and who now, carefully stuffed, adorns the museum at Bern. The poet laureate of the monks, we are proud to say, was a medical man, the late Dr. David Macbeth Moir of Musselburgh (the "Delta" of *Blackwood*), whose sonnet beginning "Where these rude rocks on Bernard's summit nod" is one of the finest in our language, and, translated into Ovidian elegiacs by Dr. Samuel Butler, Bishop of Lichfield, forms the gem of the "Arundines Cami."

THE ALLEGED CASE OF CHOLERA IN LONDON

THE long immunity which this country has happily enjoyed from cholera is doubtless in part responsible for the regularity with which every year alleged cases of the disease are said to have occurred here. As a rule, these cases resolve themselves into forms of enteritis, differing but little, except in the intensity of their symptoms and their fatal issue, from the ordinary type. This week the death from an attack of acute diarrhœa of a young man, twenty-nine years of age, residing at Harlesden, was at first reported as a "case of cholera in London." An inquest fortunately elicited the true facts of the case, which were that the man had been attacked with diarrhœa four months since, with a recurrence last month, the immediate cause of death being an attack of choleraic diarrhœa induced by an indigestible meal.

SENILE SCLEROSIS.

DR. PUTNAM of Boston has called attention in the *Journal of Nervous and Mental Disease* to what he calls "a group of cases of sclerosis of the spinal cord, associated with diffuse collateral degeneration, occurring in enfeebled persons past middle life, and especially in women." Eight cases to which this description might apply have been seen, and the cords have been examined in four of them. There were, of course, individual differences in the cases, but the symptoms in general consisted of a subchronic progressive impairment of both the sensory and motor functions of all four extremities, associated after a time with moderate wasting of muscles and general emaciation. The fatal cases ran their course in about two years—in one it was four,—and presented complete paraplegia as a symptom towards the end. In three cases incoördination of movement was a marked symptom, while in the rest it was absent, or at least not obtrusive. Shooting pains were present in only one case, and the symptoms in this were much more spastic than ataxic in character. Another noticeable point is that of the eight fatal cases six were women, all were past middle life, nearly all were in a condition of considerable debility, and in several obstinate diarrhœa was a marked symptom. Several of the patients had also carried in their tissues small quantities of lead, as proved by analysis of the urine, and two had had malaria. Anatomically morbid changes were found

in both motor and sensory areas of the cord throughout its entire length. The medulla and pons were examined in only one case. They were found to be free from material change. The changes in the cord were of two kinds: one of older date, consisting of a relatively dense sclerosis in the posterior and lateral columns, and the other of a subacute character, partly in new places and partly around the edges of the older sclerosis. In the grey matter the changes consisted of a disintegration of cells, and their almost total disappearance in some places. Such were the symptoms and the anatomical changes underlying them. The author also discusses the etiology of the condition, but without coming to any definite conclusion. This at such an early stage is but natural. No doubt fresh cases will soon be adduced (indeed one has already been described in this country by Dr. Grainger Stewart, which in its clinical symptoms corresponds with Dr. Putnam's cases), and the histories of those will probably throw some light on the origin of the condition.

SANITARY SCIENCE AND THE MAGISTERIAL BENCH.

THE general observations with which police magistrates are apt to garnish their official utterances are frequently unwise and sometimes injurious. Mr. Hannay, unless he is much misrepresented in the public press, has been illustrating this proposition. He appears to have disburdened himself, when recently making an order for necessary repairs to an insanitary house, of the remark that he had very little belief in sanitary science, and that it had been his experience during thirty years that, when he had people before him for living in insanitary houses, they seemed to be the healthiest persons in court. The opinion here expressed and the grounds on which it is rested are so perfectly of a piece as to leave no room for doubt that the author of this notable aphorism was honestly expressing his own mind. But other people will look for something more than congruity between the premisses and the conclusion. They may even ask whether the premisses are trustworthy; and if they do, they will hardly fail to perceive that the appearance which insanitary householders may make to Mr. Hannay's eye, even during thirty years of casual observation, affords only a very imperfect index of the risk which their wives and children run from the contagium of typhoid, of diphtheria, or of scarlatina. This elementary consideration shows that, after all, Mr. Hannay is entitled to our thanks; for, having committed himself to a palpable sophistry, he could not draw from such a source any conclusion more favourable to sanitary legislation than that which he expressed in the language of pointless condemnation.

TECHNICAL CLASSES IN COUNTRY DISTRICTS.

THE necessity of including technical instruction within our plan of national education is now universally admitted. Only the forms and manner of its introduction in different cases remain to be determined, and we may safely trust that a sense of local needs, aided by the wider perceptions of national intelligence, will usually succeed in adjusting these to existing requirements. As far, at least, as the town population is concerned, there is little ground for apprehension on this point. The position of country districts is somewhat different. There is in them less readiness in combining for a given purpose. Spheres of activity as important as those which employ the energy of cities are apt to be overlooked because of their comparative isolation. Teaching facilities are fewer. It is generally allowed, nevertheless, both on social and sanitary grounds, that any suitable arrangement which would check the abnormal influx of rustic energy to towns already overthronged with workers must prove a common gain of no small value. One means of accomplishing this result, and probably the best for the purpose, is to raise the agricultural labourer to the condition of a skilled workman. Systematic training alone can effect this. As regards its most appropriate method, we may gather some useful hints from the remarks of a medical contributor to a provincial paper. Agriculture, according to this writer, should take precedence of all other subjects in the course of rural technical education. Its introduction might begin at an early stage in the ordinary Board School teaching, and children might thus be taught by object lessons, pictures, and the like, the elementary botany and natural history of the farm. At a later period, technical classes could be formed in connexion, for example, with the South Kensington Science and Art Department, wherever a dozen or twenty young persons could be got together. The difficulty of finding teachers could often be met without the risk of extravagant outlay by an arrangement with the district schoolmaster. Such is the outline sketch of a project which, though still untested by practice, has evidently been thought out with some care, and merits at least an experimental trial.

THE STUDY OF ANATOMY IN THE GLASGOW SCHOOLS.

THE Medical Schools of Glasgow are threatened with a very serious calamity in the resolution come to by the City Parochial Board to allow no more bodies to be removed from the city Poorhouse for dissection, whether these bodies are claimed by friends or not. Unless the Board sees its way to rescind this resolution, which may have been somewhat hastily arrived at, the work of the medical schools will simply be paralysed; and if, as is hinted, the other parochial boards follow the example of the City Board, it is difficult to see how the work of medical education can be carried on. The Glasgow students, university and extra-mural, working at anatomy number about 500. If their study is to be stopped, and men are thus deterred from enrolling in Glasgow (enrolment taking place usually at the beginning of the winter session), it means great hardship to a school which is in every way flourishing, and a credit to Glasgow. We would appeal on these broad public grounds to the City Parochial Board for a reconsideration of their position.

AT the Congress of German Naturalists and Physicians which has been held this week at Halle, Professor Anfrecht of Magdeburg expressed his opinion of the value of Koch's tuberculin as a remedy for tuberculosis, especially in the initial stages; and further averred that it retarded the progress of the disease even in the period of excavation. His remarks were to a certain extent endorsed by Professor Weber of Halle.

THE Society of German Alienists, which met last week at Weimar, has unanimously adopted a resolution welcoming the introduction of a Bill against drunkenness with great satisfaction, but not recommending the punishment of drunkenness as such. The resolution demands the confinement of habitual drunkards in hospitals under medical management and State supervision.

THE *London Gazette* announces that the Queen has been pleased to give directions for the appointment of David Palmer Ross, Esq., M.D., M.R.C.S., C.M.G., Colonial Surgeon of Sierra Leone, to be a Member of the Executive Council and an Official Member of the Legislative Council of that Colony.

TYPHOID fever appears to be very prevalent in New York, as many as seventy-nine cases having been reported in one week.

REPORT OF THE VETERINARY DEPARTMENT OF THE BOARD OF AGRICULTURE FOR 1890.

THE annual report of Professor Brown, Director of the Veterinary Department of the Board of Agriculture, detailing the work of that department for the past year, has just been issued. In the report and the appendix will be found striking evidence of the activity of the department in the great task of the prevention of contagious disease among stock, and the records in this respect have a particular interest, since they embody the account of the work done under the Pleuro-pneumonia Act of 1890, which came into force on Sept. 1st of that year. This Act repealed the Slaughter Act of 1888, and its main provision consists in the substitution of the central authority of the Board for that of local authorities in taking action regarding the slaughter of diseased animals and those in contact with them; whilst the cost and compensation resulting therefrom are now defrayed out of the Imperial exchequer instead of by the rates. The mode of procedure consists in information of a suspected outbreak being at once sent to the Board, together with the lungs of the (supposed) infected animal. If on examination of these organs the diagnosis is found to be correct (and happily in several cases it has not been so), an inspector is at once sent down to the district with authority to take all the necessary measures for stamping out the epidemic, and to institute inquiries as to its origin. Professor Brown points out that there is need of similar regulations concerning swine fever, which is largely propagated by the lack of restriction upon sales and the movement of swine from one district to another. The subject of tuberculosis has engaged the attention of the department, and some experiments have been made to determine the vexed question of the infectivity of the flesh of beasts suffering from tuberculosis. In two series of experiments conducted at Harrow and Denham it was found that about 75 per cent. of the rabbits and guinea-pigs with whose food some of the flesh from such a source had been mingled became tuberculous; but those fed on milk from tuberculous cattle escaped. Contrasted with these results are the wholly negative ones obtained by Professor Mc Fadyean in fourteen cases, in which the expressed juice of the meat from tuberculous beasts was given to rodents. But it is pointed out that these latter experiments were conducted with every precaution as to antiseptics &c., and that such laboratory practice is hardly comparable to the conditions obtaining in ordinary life. Hence, so far as these researches go, they may be said to confirm the view that tuberculosis may be conveyed by meat as ordinarily consumed. The department has also been conducting trials to test the efficacy of Koch's tuberculin as a diagnostic agent. It was felt that should it prove reliable in invariably producing marked reaction in the tuberculous animal, a great advantage would be gained in the early detection of disease. Unfortunately it proved otherwise, for it was found that quite as characteristic reactions were obtained in the case of healthy beasts as in those the subjects of tuberculosis. Tuberculin is consequently held to be useless as a diagnostic test. Professor Brown also makes mention of a recent statement by M. Mandereau that bacilli are invariably present in the aqueous humour of the eye of tuberculous animals; but on trial this test also was found to be fallacious.

The Appendix contains, in the first place, a report by the chief inspector (Mr. Alex. Cope) on the diseases which have existed among animals in foreign countries and in foreign animals landed in Great Britain in 1890. Of more immediate interest is the next report—viz., that on the diseases which have existed among animals in Great Britain, by the assistant inspector (Mr. W. Duguid). Pleuro-pneumonia, anthrax, swine fever, rabies, and glanders are the diseases therein considered. The report on pleuro-pneumonia is in two portions, the one dealing with the eight months prior to the enforcement of the Act of 1890, and the other with the remaining four months of the year. It is interesting to compare the results obtained in these two periods. Thus, during the first period there were 1466 cattle attacked and 6459 "contact cattle" slaughtered; during the second period 591 were attacked and no fewer than 5389 "contact cattle" slaughtered. These latter animals were themselves free from the disease, but exposed to infection; and it is a striking fact that in four months under the central authority of the Board nearly as many of this class were destroyed as during the eight months in which the local authorities had the enforcement of the slaughter regulations. From a map illustrating the distribution of outbreaks during the year it is seen that Lancashire heads the list with 116 outbreaks; next comes Midlothian with 68; and then Cumberland with 48. The amounts paid in compensation for animals slaughtered for pleuro-pneumonia in Great Britain during the year were £10,662 4*s.* 11*d.* for diseased cattle, and £57,075 7*s.* 5*d.* for healthy cattle in contact with the diseased—figures which speak for themselves as to the magnitude of the operations necessary to the attempt to stamp out this virulent plague. Anthrax appears to have been more widely spread over the country than in the preceding year, but there were fewer fresh outbreaks. In all, it appeared in 48 different counties, in 157 outbreaks, the greater number of these being in the West Riding of Yorkshire, Norfolk, and Lancashire. This disease is far more prevalent in England than in either Scotland or Wales, and the total numbers of animals affected include 253 cattle, 72 sheep, 210 swine, 7 horses, and 1 dog, showing a remarkable increase over preceding years in the numbers of sheep and swine affected. It is noted that recoveries were more frequent, and the need for thorough disposal of the infected carcases, and for precaution in handling them, is emphasised. Swine fever showed an increase over 1889, and the lack of sufficient restrictive measures is deplored. Certainly the number of outbreaks of this affection is enormous—viz., 5076—and only two counties in England (Cumberland and Westmoreland) were free from them. The largest number of outbreaks occurred in the West Riding (701), Staffordshire (485), Lancashire (291), Gloucestershire (255), and Wiltshire (222). The total number of swine attacked during the year was 29,092, and 267 were left over from 1889, of which 12 785 died, 12,844 were killed, and 2999 recovered; 731 remained alive at the end of the year.

As to rabies, it is satisfactory to note a very decided decrease in the number of dogs affected—viz., from 312 in 1889 to 129 in 1890, a result attributable in large measure to the enforcement of muzzling in districts in which it prevailed. The chief centres of the disease were the West Riding, which gave 38 cases, London 25 cases, Hants 15 cases, Notts 9 cases, and Middlesex (excluding London) 8 cases. About one half of those affected were stray dogs. Glanders and farcy prevail to the greatest extent in London and its vicinity, the facilities for their spread in large studs being so great. It is urged that only by the practice of the strictest isolation, and the slaughter of the diseased horses, can the ravages of these highly infectious diseases be checked. The Appendix contains further full details of the working of the Pleuro-pneumonia Act of 1890, with statistical tables and financial statements. In conclusion, we may take leave to congratulate the director upon finishing this elaborate and interesting report within a comparatively short time after the close of the year to which it refers. If all such returns could be as promptly published they would attract more attention than they often do.

MEDICO-PSYCHOLOGY IN ITALY.

ITALIAN MEDICINE has made advances in many important directions, but in none more than that of mental disease. In the noble address with which the Senator Dr. Verga opened the Medico-Psychological Congress recently dissolved at Milan, he pointed with just pride to the contrast between the Italy of 1873 and the Italy of 1891 as regards the position and prospects of alienist medicine. On Sept. 23rd of the former year the first Società Freniatrica Italiana met in Rome, and the programme it set itself to carry out was a sufficiently arduous one. There was then no classification of mental disorders in Italy available for the statistician. A census had yet to be compiled of the lunatic inmates of the many hospitals and asylums throughout the kingdom. Finally, a law for the regulation of these manicomi or asylums and for the safe-

guard of the lunatic citizen had still to be extorted from a too preoccupied Government.

By the September of 1874 the Società Freniatrica of Rome had convened a Congress—the first in Italy—at Imola, and there the first two articles of the programme, a classification of mental diseases and an adequate census of the lunatic population, were announced as completed. The classification, adds Dr. Verga, is alike admirable for thoroughness, clearness, and brevity, while the census exhibited the proportion of the insane to the general population, not only according to sex, age, civil status, culture, religion, social circumstances, and morals, but also according to the main forms of mental disease—a census, indeed, which in every other European State is still a desideratum.

A law for the regulation of manicomi, such as other nations are justly proud of, has not yet been entered on the statute book of Italy. But, says Dr. Verga, "we are on the eve of seeing this *lacuna* filled up, thanks to the insistence of the Società Freniatrica Italiana and the intervention in Parliament of some of its most authoritative members."

Not only in what may be termed the legislative aspects of lunacy, but in the pathological as well, the advances made by Italy have been conspicuous. From the first modest beginning at Rome and the first congress at Imola not a year has passed without distinct acquisitions to the science of mental disease, in diagnosis and treatment. "Young physicians," says Dr. Verga, "barely graduated, threw themselves with ardour into experimental psychology, and the measure of time in psychical acts, whether elementary or complex, and that of the temperature during the play of the emotions, were gauged with scientific exactitude. From the confines of anthropology they launched into the tranquil regions of civil law, and their humanitarian audacities (*audacie umanitarie*) won applause and imitation even among foreigners. No vital phenomenon, conscious or unconscious, however strange or obscure, was left without illustration. No argument respecting the human ψυχή, however high or hazardous in its bearings, remained without discussion. No expedient of diagnosis or cure, internal or external, medical or surgical, proposed against mental alienation or against neurosis of any kind, but was brought to the test of precise experimentation." Some manicomi, adds Dr. Verga, issued periodical reports embodying work of the kind indicated above; while monographs and publications devoted to the subject came fast and thick on the profession.

Medico-psychology, which had previously no place in professional education, is now represented by special chairs in wellnigh all seats of learning throughout the peninsula; and in another and not less important direction there has been salutary innovation. The manicomi have undergone radical reform—so much so, indeed, that a distinguished French alienist is constrained to admit: "Durant cette période (1874–84) un véritable élan se produit. Les asiles semblent sortir de dessous terre, les anciens maisons subissent des transformations qui les rendent inconnaissables; les reformes se succèdent, et partout enfin on trouve l'empreinte du progrès véritable, ainsi que de l'application au régime des aliénés des découvertes modernes."

From the encouragement to be found in these facts, Dr. Verga proceeded to remind his audience of the defects under which Italian medico-psychology still laboured. "Inaccessible is the supreme height of every science. But to think of the summit of psychiatry!—the loftiest summit in all science, a summit ever covered with clouds dark and awe-inspiring. ..... But I never cease to exhort the Società Freniatrica Italiana to assert itself the more, to perfect its discipline, to develop all its energies, enlarging its horizon, without ever losing sight of its three grand aims—'Gli alienati, i Manicomi, la Psichiatria.'"

The business of this the Seventh Medico-Psychological Congress of Italy was in keeping with the eloquent words of its president, and a mere enumeration of the subjects handled would attest the thoroughness with which the whole field of mental pathology and therapeutics is worked by Italian medicine. Fortunately, the publication of the "Atti," revised by the authors of the several papers, and of the criticisms passed on them, renders unnecessary more than a passing reference to one or two of the more interesting. Probably the "Ricerche negli Antropoidi di alcuni Caratteri Craniologici" of Dr. Maccabruni attracted most attention at the sittings as a contribution to the comparative physiology of the brain and its functions. Dr. Lombroso's paper, "Sulla Sensibilità nelle Donne Normali," had many bearings on the fitness claimed in some quarters for women to undertake the duties of men. Another topic, local indeed, but none the less interesting, was "Pellagra as a Cause of General Paralysis," by Professor Vassale. He described the toxic nature of the disease and its effect on the nerve centres, and illustrated his position with anatomico-pathological preparations. This gave rise to a brisk discussion, and was followed by Dr. Martinotti's paper, entitled "Alcune Osservazioni Isto-patologiche Capsule Surrenali in un Caso di Paralisi Progressiva," which, as published in the "Atti," will be found to merit all the attention it received at the Congress.

The next meeting takes place in Rome under Dr. Biffi's presidency, and, following the salutary custom of Italian Medical Congresses, a series of subjects have been prescribed to experts in the same, who are to examine and report upon them at the first sittings.

THE PRISON COMMISSIONERS' REPORT.

THE Commissioners of Prisons are able this year to add to the series of favourable reports which they have in recent years presented to Parliament upon the interests which are committed to their care. The marked diminution in the number of persons detained in confinement, which has so frequently—indeed, so constantly—of late made a salient feature in their annual record, is exhibited again this year, and although they observe that "it would be quite reasonable to expect that the numbers will rise again above their present unprecedentedly low level," there is in their report no indication of any specific fact which could serve as the ground of such an anticipation. And, on the other hand, recent changes in the law relating to elementary education may be expected to diminish the number of statutable offences to an extent which, judging from the present report, should be by no means insensible. Indeed, it seems probable that the remark in question has been prompted rather by general motives of caution and a desire to avoid *couleur de rose* than by any unwelcome fact in the Commissioners' budget. We, for our part, are disposed to be sanguine as to the interpretation to be put upon the figures. A statistical tendency which has been manifested over so long a period of time cannot be without significance as to the condition of things which is reflected in the statistics; and it may surely be reasonably, and even confidently, believed that the many ameliorating influences which have lately been brought to bear upon those classes of the community from which the ranks of criminals are chiefly recruited have not been without their effect. It may perhaps be thought that the growth of the practice of abstinence from alcohol is a conspicuous instance of the operation of those ameliorating influences to which we have alluded. To some extent this probably represents the fact. But, on the other hand, the revenue returns show that commercial prosperity produces a very immediate effect upon the drink bill, and it would probably be too much to expect that in case of a return of the abounding industrial prosperity of a past decade the population of these islands would merit the character for self-control which, as matters stand, they are fairly in the way to win.

Among the subjects touched upon in a report which has no very distinctive features, the most important is without question the treatment of juvenile offenders. The following observations by a prison chaplain appear to us deserving of greater prominence than has been assigned to them in the Commissioners' report. "From my own experience," he says, "I find that the punishment of children by imprisonment has a very bad result. If, as in most cases, the children find imprisonment by no means so terrible as they expected, the result must be very bad. They expect, it may be, chains and darkness, and to be kept without food. They find themselves treated well, with better food perhaps than they have been accustomed to in the streets, clean clothes, warmth and kindness. It is not to be wondered at that they have no fear of returning to prison. In illustration of this, I have the case of two lads, brothers (ages eleven and thirteen), who came here on remand on the 6th of January. They appeared, though so young, in no

way concerned or distressed, and I think were perfectly contented in prison. It is not surprising that these two children came again in July, and were then sent to a reformatory. On the other hand, there are now and again sensitive children to whom imprisonment is a terrible punishment, far outweighing the crime which they have committed. Accustomed to be at home with brothers, sisters, and parents, accustomed, too, to the fresh air and plenty of running about, it is in itself a punishment to see such young children, who scarcely know how to fold up their blankets, obliged to sleep in a lonely cell at night and crying during the day because they cannot go to mother."

ACCIDENTS AMONG STEVEDORES.

BOTH before the Labour Commission and before the Trades Union Congress, recently held at Newcastle, the prevalence of accidents in the docks has been forcibly insisted upon. This is a question to which we drew public attention some time previously to the great dockers' strike. Some improvement has taken place, but a great deal more is needed. Nor are the dockers the only persons to suffer. Accidents are very frequent among the stevedores, and these, we are told, if proper precautions were taken, could easily be prevented. The representative of the South Side Labour Protection League asks that independent Government inspectors should watch over the security of those who, as dockers, work at unloading ships, or those who, as stevedores, are employed loading ships. The latter labour requires much strength and skill. On the manner in which a ship is loaded depends to a great extent her security at sea. A stevedore ought to know, for instance, how to pack in the hold of a ship very large and unwieldy articles. But the lowering into the hold of a ship of huge pieces of iron of irregular shape, such as the portions of a bridge destined to span some Indian or Australian river, is a work at once difficult and dangerous. Serious accidents frequently occur in the London Docks, and the London Docks are no exception to docks in general. We are informed that a frequent source of accident is found in the unsound condition of the chains employed. If a chain snaps as merchandise is being lowered into a ship it is very probable that a stevedore will be struck by a fragment of the chain or crushed by the falling cargo. A workman who complains is not liked by his employer. An independent inspector, however, would have no objection to receive such complaints, and would proceed at once to look at any chain to which his attention might be called. In case of a defect in one of the links it is easy to break the link with a blow from a hammer, and then it cannot be used again till a sound link replaces the broken one. It is also suggested that chains when used in such a manner as to involve the security of life should be Hall-marked as a guarantee of their soundness. Again, chains capable, for instance, of lifting four bars of pig iron may be used to lift six bars, with the result that the chain occasionally breaks, the iron comes crashing down, to the terror and danger of anyone standing by. The Hall mark should indicate what is the strength of the chain, and inspectors should see that chains are not employed for heavier work than that for which they are intended. Proper care also must be taken of chains. If they are neglected, even a chain that looks very strong will become weak. Chains must be well oiled and protected from rust.

Another frequent source of accident is due to the hatches giving way. The ledge on which the planks are placed should be at least two inches and a half wide, as allowance must be made for the warping of the wood. As it is, the ledge may be insufficiently deep, the plank badly placed, and then it gives way on being trod upon, and the unfortunate person who has ventured to walk over the hatch falls into the hold beneath. The workers concerned would very readily send anonymous complaints to an independent State-appointed inspector. Nor can there be any harm in such anonymous complaints. Either a chain is sound or it is not sound; a hatch is well or badly fixed. The inspector would only have to look and verify for himself.

In the holds of large ships temporary scaffolding has to be erected, so that the stevedores may pack the cargo. If the ropes employed are not sound, the scaffolding gives way, the men fall, and perhaps some of the cargo falls upon them. If inspectors occasionally examined such scaffolding accidents would certainly not be so frequent. Then there are complications and even disputes between engineers and stevedores, which do not contribute to render the work any safer. Stevedores are sometimes set to drive monkey and other engines, and engineers very properly protest that this is not the stevedores' business, and that they do not know anything about engines. On the other hand, engineers are at times employed to work about a ship, though they know nothing about shipping, and it is then the turn of the stevedores to complain. Such are some of the circumstances that contribute to render life insecure among the workers in the docks. It is not perhaps the number of persons who are actually killed that represents the worst phase of the question. More fatal, more disastrous in the long run, are the accidents that do not occasion immediate loss of life. It is the wounded, the crippled, those whose constitutions are undermined and whose strength is destroyed, who constitute the great army of victims. The man who is hurt hesitates to make too much ado about his wound for fear he should be considered unfit for further employment; very probably he actually is unfit, yet he returns to work. He is cured, but he is not the man he was before; the work he used to do easily is now most painful, and he soon dies or becomes a permanent invalid. A little experience of dock life will show how much suffering, how many accidents are incurred with the poverty and misery they entail, which with greater care could be prevented. But for this some method of constant surveillance is necessary. That surveillance should be perfectly independent of the dock companies and the ship owners. The inspectors should be appointed by the Government to protect life, and to act independently of all trade interests. No doubt something will soon be done in this respect. The workers are now better organised, and are better able to make known their needs and desires. Parliament and the Government, on its side, has shown a disposition to take the matter in hand by appointing the Labour Commission. The evidence collected at the hospitals near the docks, or given by medical men who attend to the workers in the docks, confirms what has been said as to the frequency of accidents and the fact that the wounded often destroy their chances of permanent recovery by going back to a kind of work which, after the injuries received, has become too hard for them. We repeat that independent and energetic inspectors should be appointed to prevent neglect and, if needs be, to bring to punishment those who are to blame for injury or loss of life.

Public Health and Poor Law.

LOCAL GOVERNMENT DEPARTMENT.

REPORTS OF MEDICAL OFFICERS OF HEALTH.

Bristol Urban and Port District.—In two important respects progress has been made in Bristol during 1890, the notification of infectious diseases has turned out to be of great utility, and considerable attention has been devoted to the housing of the poor. Supplementary building by-laws have also been made and approved, and a destructor has been erected. Public abattoirs are still needed, and the isolation of infectious diseases is still most insufficiently provided for; but this latter question is under serious consideration. Strange as it may appear, water is still drawn from the soil on which some 230,000 people live, and in which are constructed the drains and sewers of this ancient city, but no one could put the case for abandonment of local wells much more strongly than does Dr. Davies. The various diseases which have prevailed are considered in detail, and amongst numerous interesting items of information it seems that, whilst diphtheria is increasing in so many urban communities, it is decreasing in Bristol. The natural history of influenza is dealt with in a comprehensive way. The general death-rate for the year was 19·2 per 1000. In the port district Mr. J. C. Heaven coöperates with Dr. Davies, and a large amount of

useful work is regularly maintained. The number of ships inspected was 1224, and in 28 per cent. conditions were found needing amendment. No less than 81 per cent. of the notices issued were at once complied with; and with regard to infectious diseases, removal to the Avonmouth port hospital and disinfection were systematically carried out. The reports on the city and on the port are both fully illustrated by tabular matter, which has evidently been compiled with great care, and a number of plates showing the relation of certain diseases to temperature &c. go to make up a volume which sets out clearly the story of the health and sanitary history of Bristol and its port during the year in question.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

In twenty-eight of the largest English towns 5691 births and 3201 deaths were registered during the week ending Sept. 19th. The annual rate of mortality in these towns, which had been 16·8 and 17·3 per 1000 in the preceding two weeks, further rose last week to 17·7. The rate was 15·7 in London and 19·4 in the twenty-seven provincial towns. During the past eleven weeks of the current quarter the death-rate in the twenty-eight towns averaged 17·9 per 1000, and was considerably below the mean rate in the corresponding periods of the ten years 1881–90. The lowest rates in these towns last week were 12·4 in Portsmouth, 13·2 in Halifax, 13·8 in Hull, and 14·0 in Cardiff; the highest rates were 23·8 in Blackburn, 25·0 in Manchester, 27·8 in Sunderland, and 29·0 in Preston. The deaths referred to the principal zymotic diseases, which had declined in the preceding seven weeks from 653 to 456, rose again last week to 519; they included 292 from diarrhœa, 81 from whooping-cough, 46 from "fever" (principally enteric), 44 from diphtheria, 31 from scarlet fever, 24 from measles, and one from small-pox. The lowest death-rates from these diseases were recorded in Halifax, Bristol, Hull, and Birkenhead, and the highest in Manchester, Sunderland, Wolverhampton, and Preston. The greatest mortality from whooping-cough occurred in Huddersfield; and from diarrhœa in Brighton, Sunderland, Leicester, Manchester, Sheffield, Bolton, Wolverhampton, and Preston. The mortality from measles, scarlet fever, and "fever" showed no marked excess in any of the twenty-eight towns. The 44 fatal cases of diphtheria included 32 in London, 3 in Salford, 2 in Liverpool, and 2 in Sheffield. A death from small-pox was registered in Birmingham, but not one in London or in any other of the large provincial towns; 2 cases of this disease were under treatment in the Highgate Small-pox Hospital, but not one in any of the Metropolitan Asylum Hospitals. The number of scarlet fever patients in the Metropolitan Asylum Hospitals and in the London Fever Hospital at the end of the week was 1021, against 947 and 993 on the preceding two Saturdays; the patients admitted during the week were 137, against 97 and 151 in the previous two weeks. The deaths referred to diseases of the respiratory organs in London, which had been 155 and 145 in the preceding two weeks, rose again to 152 last week, but were 27 below the average. The causes of 58, or 1·8 per cent., of the deaths in the twenty-eight towns were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Portsmouth, Norwich, Hull, Cardiff, and in six other smaller towns; the largest proportions of uncertified deaths were recorded in Blackburn, Preston, Liverpool, and Brighton.

HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in the eight Scotch towns, which had increased from 17·6 to 18·7 per 1000 in the preceding three weeks, declined to 15·4 during the week ending Sept. 19th, and was 2·3 below the mean rate that prevailed during the same period in the twenty-eight large English towns. The rates in the eight Scotch towns ranged from 10·9 in Paisley and 11·8 in Perth to 16·4 in Leith and 17·0 in Glasgow. The 397 deaths in these towns showed a decline of 84 from the number in the preceding week, and included 32 which were referred to diarrhœa, 8 to scarlet fever, 7 to "fever," 5 to measles, 5 to diphtheria, 4 to whooping-cough, and not one to small-pox. In all, 61 deaths resulted from these principal zymotic diseases, against 72 and 75 in the preceding two weeks. These 61 deaths were equal to an annual rate of 2·4 per 1000, which was 0·5 below the mean rate from the same diseases in the twenty-eight English towns. The fatal cases of diarrhœa, which had declined from 47 to 35 in the preceding three weeks, further fell last week to 32, of which 16 occurred in Glasgow, 5 in Dundee, and 4 in Leith. The 8 deaths from scarlet fever showed a further increase upon those recorded in recent weeks, and included 6 in Glasgow and 2 in Greenock. The 7 fatal cases of "fever" showed a decline of 7 from the high number in the preceding week; 4 occurred in Glasgow and 3 in Edinburgh. The 5 deaths referred to measles, and 3 of the 5 deaths from diphtheria, were recorded in Glasgow. The deaths referred to diseases of the respiratory organs in these towns, which had been 82 and 62 in the preceding two weeks, further declined last week to 53, and were 21 below the number in the corresponding week of last year. The causes of 39, or nearly 10 per cent., of the deaths in the eight towns last week were not certified.

HEALTH OF DUBLIN.

The death-rate in Dublin, which had been 18·5 and 22·1 per 1000 in the preceding two weeks, declined to 21·0 during the week ending Sept. 19th. During the past eleven weeks of the current quarter the death-rate in the city averaged 20·0 per 1000, the rate for the same period being 17·7 in London and 16·0 in Edinburgh. The 144 deaths in Dublin during the week under notice showed a decline of 7 from the number in the preceding week, and included 14 which were referred to diarrhœa, 4 to whooping-cough, 4 to "fever," and not one either to small-pox, measles, scarlet fever, or diphtheria. In all, 22 deaths resulted from these principal zymotic diseases, equal to an annual rate of 3·2 per 1000, the zymotic death-rate during the same period being 2·9 in London and 1·4 in Edinburgh. The fatal cases of diarrhœa, which had increased from 4 to 14 in the preceding three weeks, were again 14 last week. The deaths referred to different forms of "fever," which had been 2 and 3 in the previous two weeks, further increased to 4 last week. The 4 fatal cases of whooping-cough also exceeded the number in the preceding week. The 144 deaths in Dublin included 39 of infants under one year of age, and 23 of persons aged upwards of sixty years; the deaths of infants showed a further increase upon recent weekly numbers, while those of elderly persons showed a decline. Eight inquest cases and 8 deaths from violence were registered; and 41, or more than a fourth, of the deaths occurred in public institutions. The causes of 13, or 9 per cent., of the deaths in the city were not certified.

THE SERVICES.

SURGEON CAPTAIN J. R. CLARK has been appointed Instructor at the Depôt Training School of the Medical Staff Corps.

NAVAL MEDICAL SERVICE.—In accordance with the provisions of Her Majesty's Orders in Council of April 1st, 1881, and Dec. 30th, 1884, Surgeon Henry Garrard Jacob has been placed on the Retired List of his rank (dated Aug. 22nd, 1891).—The following appointments have been made at the Admiralty:—Fleet Surgeons: William H. Stewart to the *Caledonia* (dated Sept. 22nd, 1891); John K. Conway to the *Victory;* John S. Dobbyn to the *Vivid*, additional, and Brien P. S. M'Dermott to the *Nelson* (both dated Oct. 1st, 1891). Staff Surgeons: Alexander R. Joyce to the *Himalaya* (dated Oct. 2nd, 1891); William G. Jack to the *Ganges* (dated Sept. 23rd, 1891); Otway P. Browne to the *Immortalité* (dated Sept. 22nd, 1891). Surgeons: George T. Broatch to the *Caledonia* (dated Sept. 22nd, 1891); Henry Norris to the *Asia* (dated Sept. 17th, 1891); William E. Home to the *Briton* (dated Sept. 24th, 1891); Edmund Corcoran, Alfred Cropley, Eric E. Kershaw, and Henry Harries to the *Victory*, additional (all dated Oct. 1st, 1891).

MILITIA MEDICAL STAFF.—*Infantry:* 3rd Battalion, the Royal Irish Regiment: Surgeon and Honorary Surgeon-Major J. P. Waddy resigns his commission; also is permitted to retain his rank, and to wear the prescribed uniform on his retirement (dated Sept. 19th, 1891).

VOLUNTEER CORPS.—*Rifle:* 2nd Volunteer Battalion, the Prince Albert's (Somersetshire Light Infantry): Surgeon H. M. Kemmis is granted the rank of Surgeon-Major, ranking as Major (dated Sept. 19th, 1891).—3rd Volunteer Battalion, the Cheshire Regiment: Acting Surgeons George

Okell and Alfred Herbert Marsh to be Surgeons (both dated Sept. 19th, 1891).—3rd Volunteer Battalion, the Welsh Regiment: Acting Surgeons Charles Downing and John Tatham Thompson, M.B., to be Surgeons (both dated Sept. 19th, 1891).—1st (City of Dundee) Volunteer Battalion, the Black Watch (Royal Highlanders): Acting Surgeon David Lennox, M.D., to be Surgeon (dated Sept. 19th, 1891.)

Correspondence.

"Audi alteram partem."

THE DIAGNOSIS OF HEAD INJURY FROM DRUNKENNESS.

To the Editors of THE LANCET.

SIRS,—The subject brought forward by Mr. Battle in THE LANCET of Sept. 12th, 1891, is one of the first importance, especially to the surgeons of police who have to treat the patients. As surgeon to the C Division of the Metropolitan Police this subject in one form or another has been frequently brought to my attention, and some years since I wrote a *brochure* with the hope of assisting my brother surgeons in forming an opinion on, and in treating, these cases he describes. Unfortunately, they are only a small portion of those which may be roughly classified as due to pressure on the brain. The diagnosis would be sufficiently difficult were these straightforward cases; but unfortunately, with few exceptions, they have a halo of alcohol surrounding them, masking or intensifying the symptoms upon which we rely to form our opinion. Of course, a police-station or cell is not a proper place to make an elaborate diagnosis, and our instructions and desires are to have such cases removed to a hospital; but, unless the symptoms are pronounced, the hospital surgeons cannot take them in, and the surgeons at the workhouse infirmaries, if they have any doubt, will not do so. We have thus a responsibility thrown upon us most undesirable and perplexing. If we can remove the element of drink which, as I have said, hides the symptoms proper to brain trouble, we are more likely to be of service to the patient and to relieve ourselves of this great responsibility. Feeling this want, as all must who are brought into contact with these cases, I have for some years employed ammonia as more generally applicable than any other means of treatment. The preparation I use is the liquor ammoniæ fortior, which I allow insensible patients guardedly to inhale until they are sensible to some extent of its irritating action; then, when the patients are able to swallow, three drops of the ammonia in a tablespoonful of water are put far back in the mouth. The beneficial effects are soon seen: the fumes of drink vanish, and the symptoms proper to the particular brain mischief, if any, stand out more clearly. It is seldom necessary to continue the administration, though I have occasionally done so, and I have never seen any bad effects follow, as I at first thought possible. Mr. Battle is labouring under a misapprehension of the "Police Regulations" if he imagines any "inspector or sergeant" is allowed "to give an opinion on the subject," as I, or any other person connected with the service, would be pleased to show to one who has taken so deep an interest in this difficult question.

I am, Sirs, yours truly,

Jermyn-street, W. J. H. WATERS.

THE LEPERS IN SIBERIA.

To the Editors of THE LANCET.

SIRS,—Amongst the many enterprises for the amelioration of human suffering which come under the notice of your readers there is one which is perhaps less widely known than it deserves to be, and which I therefore crave your indulgence to mention shortly—viz., the work which is being carried on amongst the lepers of Siberia by two devoted English ladies, Miss Marsden and Miss Field. It is probably well known that the unfavourable conditions of existence in that vast inhospitable country lend themselves in marked degree to the propagation of the terrible scourge of leprosy, and the praise of attempting seriously to diminish it must be accorded to the heroic labours of these ladies. The interest which was recently aroused in the condition of lepers in South Africa by the melancholy tale of suffering published in one of the magazines will not have been forgotten, but the story of the poor outcasts on the dreary wastes of Siberia is, if possible, a sadder one. Miss Marsden, a Red Cross sister, who has proved her devotion on the battle-fields of the Russo-Turkish war, accompanied by Miss Field, who has the advantage of being entirely familiar with the Russian language, began this work almost without any aid except such as was afforded them in the way of facilities in travelling by the kindness of Russian officials. They chiefly occupied themselves in administering attendance and such little comforts as were obtainable to the patients whom they visited, but after much service of this kind, rendered in circumstances of the greatest personal hardships and discomfort, which would have daunted less noble-minded women, they found that these labours, however useful in individual instances, were of little avail unless more extensive measures could be adopted. The poor people expressed an anxious desire to have a hospital provided for the treatment of their disease, and this was of course beyond the personal resources of their benefactors to establish. Miss Field has now returned to this country to plead the cause of the lepers, with a view of enabling such a hospital to be founded, and she hopes to rejoin Miss Marsden shortly with the means to have this accomplished.—I am, Sirs, yours truly,

HUGH LANE.

Hon. Surgeon to the Royal Mineral Water Hospital, Bath; Hon. Medical Officer to the Royal United Hospital, Bath.

Sept. 15th, 1891.

DESQUAMATION AND INFECTION IN SCARLET FEVER.

To the Editors of THE LANCET.

SIRS,—Dr. Jamieson's paper in your last issue on a method of shortening the period of desquamation and infection in scarlet fever touches a matter of great interest to the general practitioner. I was very much interested in the question a year ago. Being attacked by the illness in a moderate form I spent three weeks in my bedroom, and then went to the Wardell Convalescent Hospital for Scarlet Fever at Stanmore. This is an excellent institution, where a certain number of upper-class patients are received. Its situation is splendid, and the grounds afford a means of getting out-door exercise without risk of infecting others, a great boon in the latter month of a weary and protracted imprisonment. Nurses and patients were all full of the best way of expediting peeling. Soaking in hot baths, washing with carbolic soap, putting the feet in hot water with washing soda, pumice stone and corn scrapers applied to the thick epidermis of hands and feet, were the regular daily exercise of all the patients. I used an ointment with carbolic and salicylic acids and wore gloves and socks at night, and at length finished peeling at the end of the seventh week. The only other means known to be of use there was painting the palms and soles with salicylic collodion. The thick skin was said to be thus removed in a few days, leaving a very tender new surface. Dr. Jamieson speaks highly of a 3 per cent. resorcin salicylic superfatted soap as assisting in the process, reducing the average stay in hospital from eight to six weeks, but very curiously finds a resorcin ointment of no use. It would be interesting to know from the London Fever Hospital, and those at Stanmore and other places, what is the average time before desquamation is complete in uncomplicated cases, what means they use to hasten the process, and which of these are of any avail. It is quite time to ask also if a patient is infectious until desquamation is complete. My own impression is that if a daily bath, with carbolic acid in it, and in which carbolic soap is used, is taken, the infective period is over long before the soles of the feet have finished peeling—say, in four weeks. The discoverers of the scarlatina germ, if I remember rightly, could not find it in the skin except for a very short time after desquamation had commenced. The only obvious way of testing the matter, letting the patient mix in society, is too dangerous to try. Could not some other method be discovered of settling the question? It would surely be a great relief to patient and doctor if the

former could be released at some date earlier than sixteen weeks—the time one little girl, whom I saw at Stanmore, was occupied in her peeling. Strapping the feet with a plaster containing salicylic acid, or, as Dr. Jamieson suggests, resorcin, might help. Its known effects on corns and warts look promising. I must apologise for occupying your space, but the hope of inciting others with more valuable experience to communicate their views must be my excuse. I am, Sirs, yours truly,

Twickenham, Sept. 19th, 1891. H. HOWARD MURPHY, M.D.

GASTRO-ENTEROSTOMY FOLLOWED BY RECURRENCE OF SYMPTOMS.

To the Editors of THE LANCET.

SIRS,—I have read with much interest the report of Mr. F. C. Larkin's case of gastro-enterostomy, followed later by recurrence of symptoms for which jejunostomy was performed. In the remarks Mr. Larkin says: "There can be no doubt that the recurrence of symptoms was due to closure of the preternatural orifice. This closure might have occurred from one of two causes: (1) Extension of the malignant growth around and over the orifice; (2) closure by cicatricial contraction." After carefully reading the case I am inclined to think that there may be a third cause for the recurrence of symptoms, which, I believe, will be found to be the correct one—viz., constriction of the jejunum at the aperture in the transverse meso-colon or great omentum, through which the intestine was drawn. That the extension of the malignant growth over the orifice may be found to be the cause is possible, but I do not think so probable as that the intestine was constricted or kinked.

The question as to the closure of the opening made between the stomach and jejunum in gastro-enterostomy is a most serious and important one. The only authentic case of closure of the opening by cicatricial contraction that has been reported, so far as I am aware, is Mr. Stansfield's. The case reported by Mr. Kilner Clarke, in which the symptoms returned—and he inferred that the opening had closed—he unfortunately was unable to confirm, as a post-mortem examination of the patient was not permitted. Personally I have performed gastro enterostomy five times, three successfully; and once I have performed pylorectomy combined with gastro-enterostomy successfully (the report of this case will, with your permission, appear in your columns shortly), in none of these did any cicatricial contraction occur. Although one lived nine months after the operation, the two others are alive now, one eighteen months and the other eleven months since the operation of gastro-enterostomy. These patients take ordinary diet. The case of combined pylorectomy with gastro-enterostomy has now been operated on seven weeks, and is being fed upon fish, minced meat, beef-tea, eggs, and milk. She suffers no pain or discomfort after taking food. Experimentally I have performed a large number of operations for gastro-enterostomy, ileo-ileostomy, and ileo-colostomy; in no case have I ever found any cicatricial contraction. I therefore think we must look further than the gastro-jejunal opening for the cause of the obstruction in Mr. Larkin's case, and consider it will be found to be the result of one of the causes I have mentioned.

One word as to the method employed by Mr. Larkin in performing so successfully the operation he has reported. I have advocated and practised a method of uniting the jejunum to the posterior wall of the stomach through an opening in the transverse meso-colon; I have also made experiments in the same direction, but for reasons that would occupy too much of your space in this letter I have abandoned it in favour of the ordinary method of fixing the intestine to the anterior wall of the stomach. I consider in those cases in which the disease in the stomach is so extensive that it is difficult to find a suitable piece of healthy stomach to affix the intestine to, that jejunostomy performed in the way I have suggested, and which Mr. Larkin has so successfully performed in his case, is the only operation that is at all likely to give the patient relief.

I am, Sirs, yours very faithfully,

FREDK. BOWREMAN JESSETT.

Upper Wimpole-street, Sept. 22nd, 1891.

CHLOROFORM SYNCOPE.

To the Editors of THE LANCET.

SIRS,—For those who do not require further proofs that chloroform inhalation may cause syncope, cases like that of Dr. Rice in THE LANCET of Sept. 19th have an interest of a different kind. This springs from our desire to find out from such reports the *modus operandi* of the anæsthetic in producing this dreadful result, and for this purpose a non-fatal case is as important as a fatal one. The report in this case, however, shows that there may be a radical difference of opinion as to the actual facts, which ought to be attended to and recorded. The report says not a word as to the moment when the administration was stopped. Was this done when the head was lowered and after the pupils had dilated, or was it done when the first observations on the pulse were made? If the latter, how much time elapsed while the several observations on the pulse were being made and before the pupil dilated? Apart from any theory as to the cause of syncope, it is an undeniable fact that it has often occurred some time after the inhalation has been stopped; and it is of the utmost importance to determine when such is the case, and when, if ever, the catastrophe may take place during the administration of a continuous atmosphere. It seems to follow as a necessary consequence from the terrible power of chloroform to cause syncope that the pulse must be watched. I beg to submit that this inference may be erroneous, and I utterly dissent from it. I believe that syncope is invariably the result of reaction from stopping the inhalation too soon, so that the chloroformist has only to go on with confidence, regardless of the pulse, the observation of which, indeed, may even give rise to a false alarm and drive him into the very danger he seeks to avoid. We may also ask if there were no interruptions to the administration in the above case before the dangerous symptoms set in? It is surely remarkable that three drachms of chloroform were expended without anæsthetising the patient, and it is deserving of notice that the same thing is recorded in the last death from methylene and Junker's inhaler, and in which it is expressly stated that the inhaler was removed from time to time. We are told that anæsthesia may be maintained for an hour, and longer, with six drachms of methylene given by this inhaler, and that one drachm of chloroform is sufficient for an operation lasting ten minutes. If so, it would seem probable that breaks were allowed in the inhalation in the above case; and at least I would beg to draw attention to the point as one which I believe to be of vital importance.

I am, Sirs, yours &c.,

Partick, Glasgow, Sept. 22nd, 1891. ROBERT KIRK, M.D.

CAP MARTIN: A NEW HEALTH STATION ON THE RIVIERA.

To the Editors of THE LANCET.

SIRS,—At this time of the year, when so many people are forming plans for the winter, I should like to draw the attention of the profession to Cap Martin. As its name implies it is a small cape, running out into the Mediterranean Sea between Mentone on the east and Monte Carlo on the west. It faces full south, and is far enough removed from the range of Maritime Alps behind to avoid those sweeping draughts which come down the valleys, and which are such serious drawbacks to Mentone and Nice. The whole estate is covered with pines, under which is a rich growth of underwood, consisting chiefly of myrtle and rosemary, making the air most fragrant and pleasant. When the estate is fully developed it will somewhat resemble the East Cliff at Bournemouth, only it will be set off with brilliant blues and greens instead of the almost uniform depressing grey of Bournemouth in the winter. For cases requiring a still atmosphere Cap Martin will be very suitable, as under these trees even during a half a gale the movement felt in the air is so slight that phthisical patients with a hæmorrhagic tendency and cardiac cases are able to go out and get their exercise in safety. Another important feature in Cap Martin is that it is level, thus differing from most other Mediterranean health stations.

The history of the place is this. About two or three years ago a Scotchman, Mr. Colvin White, bought the whole estate of about 200 acres. It was then a dense wood, used

as a pheasant preserve, and guns were let out at so much a day to sportsmen from Mentone and Monte Carlo for a day's shooting. This was all put a stop to when Mr. White acquired the property. He immediately formed a small company (in which, by the way, I have no interest direct or indirect), and then commenced to develop the estate. Roads were made, the land marked out in sites, and a large hotel built. This hotel was partially opened last year, and this year it has been completed. The sanitary work is most satisfactory in every way. A person can live there very comfortably on about 14 francs per day. The hotel faces due south, and is about four miles from Monte Carlo, to which place brakes run frequently during the day. It is two miles from the Mentone station, where an omnibus meets every train. There is also a small landing stage for boats, so that everything, even including an English billiard-table, has been provided for the comfort and entertainment of visitors and invalids.

The Empress Eugénie and her suite stayed some months at the hotel last year, and she was so struck with the place that she is building a handsome villa there and intends to make it her winter home. I know the Riviera very well. I have practised medicine in one of its large towns for several years. I have no connexion in any way with Cap Martin; but I think that it meets the wants of invalids in so many ways—in its sheltered walks, in its proximity to the sea, and last, but not least, in its absolutely perfect sanitation—that I feel it is my duty to bring the place to the notice of my professional brethren.

I am, Sirs, yours faithfully,

C. F. H.

THE GUILD OF ST. CECILIA.

To the Editors of THE LANCET.

SIRS,—Some of your readers will be interested to hear that the choir of the St. Cecilia Guild (comprising three vocalists—soprano, contralto, and baritone—and three instrumentalists—first and second violins and harp) visited on the afternoon of Thursday, the 17th, the Temperance Hospital, Hampstead-road, and St. Pancras Infirmary. During the first performance in the Sturges Ward of the hospital, four doctors—viz., W. J. Collins, M.S., F.R.C.S., M.D.; R. Wilde, M.D.; G. Mansfield, M.B., C.M.; and Miss Helen M. Wilson, M.D.,—the matron (Miss Orme), and three nurses were from time to time present. Several of the patients appeared to be suffering much—notably, one whose leg had been crushed on the railway, another affected by dropsy, and two who were shedding tears from great nervous depression. The music lasted half an hour, and when it was over inquiry was made of the patients. One and all said that it soothed them, one patient, who suffered from dropsy, remarking that the pain had kept off while music was being played and returned when it ceased. After playing for the same time with similar results in another ward (the Tustin), our choir proceeded to St. Pancras Infirmary, where we were received by Dr. Sturrock, who is in command there at present. He told us that there were no cases of insomnia amongst the inmates, but that a female patient was suffering from stubborn melancholia, and took us to the ward where she was. After the performance of the first piece (a lullaby) she told a nurse who was sitting by that she liked it very much, and wished they would play it again. On this the superintendent (Miss Rees) came up to me and said, "This is the first time she has spoken for a fortnight." Shortly afterwards a male patient suffering from delirium tremens was brought into the ward by a male attendant, who remarked on entering that he was half afraid to bring him on account of outbreaks of violence. On hearing the first notes of the music he became quite calm and very attentive. Being asked afterwards how he liked it, he answered very gently, "The harmony is very beautiful." In the course of Friday and Saturday I received letters from Dr. Collins, Dr. Sturrock, and Miss Orme, of which I submit extracts; and on Sunday evening I visited both of these hospitals again. On entering the Sturges ward with the matron I saw to my surprise and delight that the three worst cases looked very much brighter than on Thursday. Whatever may have been the cause, improvement there certainly was in each of them, and they spoke with gratitude, and very warmly, of the benefit derived from the soft music. Going on to St. Pancras, I learnt that the two patients of whom I have spoken had been sent on Friday to Banstead, having been certified insane on the day preceding our musical visit. Wishing to know more about these cases, I took down some interesting notes from the superintendent and the attendant, to which Dr. Mackay, who was escorting me, affixed his signature. These, however, my time and your space will not allow me to quote to-day. I ought to say that, in accordance with a suggestion made by Mr. Herbert Spencer to our committee, music of an enlivening nature will be given next Monday at the rehearsal of the St. Cecilia Choir, which will be held in No. 1 room (the largest) in the Westminster Palace Hotel, at 5 P.M. On Monday last we heard with regret that thirty or forty persons were obliged to leave without hearing a note, being unable to enter the room, which was overfilled. The room now taken will hold 500, and physicians and surgeons of experience are invited as before to be present as critics.

I am, Sirs, yours faithfully,

FREDK. K. HARFORD.

Dean's-yard, Westminster, Sept. 23rd, 1891.

THE SEVENTEENTH ASSEMBLY OF THE GERMAN SOCIETY FOR PUBLIC HYGIENE.

(FROM OUR BERLIN CORRESPONDENT.)

THE first meeting of the Assembly of the German Society for Public Hygiene was opened by the chairman, Dr. Lent of Cologne, at Leipsic on the 17th inst. About 300 members from all parts of the empire were present. Speeches of welcome were delivered by a Government official of rank and the burgomaster of the city. The Secretary stated that the number of members had risen from 1297 to 1340. The income of the Society for the past business year was 8175 marks (shillings), and the expenditure 6032.

Professor Soxhlet (Munich) spoke on the requirements of hygiene as regards milk, and laid stress on the importance of sterilising milk for infants. In the debate that ensued Professor Fraenkel of Königsberg declared that *all* milk should be sterilised, whether for infants or for adults. Professor Lehmann of Würzburg communicated the result of his investigation of the bacterial contents of different portions of fresh milk. He caused all the antiseptic precautions to be used. The first 300 cubic centimetres taken from the udder contained from 50,000 to 100,000 bacteria per centimetre, the second 300 contained about 5000 per centimetre, while the rest were almost altogether free from bacteria.

The second topic, sanatoria for phthisical patients, was introduced by Professor von Ziemssen's (Munich) assistant, Dr. Moritz, instead of Professor von Ziemssen himself, who was prevented from attending by the recent death of his son. Dr. Moritz held that the main elements in the treatment of phthisis are fresh air, good diet, and the avoidance of all harmful influences, all of which advantages are generally much more easily attainable in sanatoria than at home. The existing sanatoria, he said, are of no use to the poor—that is, the enormous majority of phthisical patients; and therefore states, cities, sick funds, and philanthropists should combine to establish special hospitals for the poor. Meanwhile, such patients should be quartered in farmhouses and the like. The assembly resolved to aim at the forming of societies for the establishment of sanatoria.

The second meeting was held on the 18th, and began with a lecture on cooling chambers for meat and other provisions by Professor Hofmann of Leipsic. He maintained that cooling by cold air is better than that by ice, but that the best method yet invented is that by means of intensely cold salt solutions conducted through the cooling-room in pipes. He summed up as follows: "Numerous articles of food sold wholesale are, in virtue of their composition, subject to rapid and early decomposition. In consequence of this there is a rapid diminution, soon amounting to utter loss of nutritive value, considerable financial losses by the merchant or increase of price for the consumer, and sanitary disadvantages, which appear either locally in the intestinal canal or throughout the whole system, owing to the formation and resorption of noxious substances. The best and cheapest method of preservation is the application of cold generated by suitable machines. Different kinds of

provisions require different degrees of cold and moisture, in order to render the effect of cold practically available for wholesale and retail commerce." The lecture was received with great applause, but no discussion took place.

The next theme was the use of the powers entrusted to the police as regards the sanitary condition of dwellings. This subject was treated by City Architect Stübben of Cologne. He gave statistics relating to small dwellings in cities, and showing that, on an average, the worse dwellings are, the more densely crowded they are; that every cubic metre of room costs more rent in the worse than in the better ones; and that the proportion of the rent to the income increases as the latter diminishes. The causes of these evils, he said, intensified as they are by the increase of the urban populations, are the insufficient number, the high price, the bad construction and perverse use of the buildings, and the imperfect regulation of the legal relation between landlord and tenant. In order to obtain clear knowledge of the existing evils, the municipal authorities ought to institute inquiries similar to that made by means of question schedules in 1876 by the Society for Social Politics, or, still better, to the Basle inquiry of 1889. This inquiry should include unused dwellings and sites about to be built upon. The means to be used in combating the evils in question are the erection of good new dwelling-houses for the poorer classes by private persons, societies, and employers of labour; the facilitation of such enterprises by the lightening of State and municipal taxes, the preparation by State and municipal authorities of a sufficient number of good sites, the improvement of the means of transit, and the removal of unnecessary obstacles in the form of building regulations; further legislation with reference to the transposition and combination of pieces of land in cities rendered unfit for building on by situation, form, or size, so as to form suitable sites; prevention of the erection of sanitarily objectionable buildings; improvement of bad dwellings by individuals and societies; administration of tenement houses by public-spirited societies; legislative regulation of contracts and of the use of dwellings; continual supervision of all matters connected with dwellings and the letting thereof by special authorities with definite rights and powers, closely connected with the police and the municipal authorities.

The next speaker was Burgomaster Zweigert of Essen. He drew attention to the great difficulties in the way of the organisation of a tenement police, owing especially to the far-reaching encroachments on private rights which such an innovation would entail. He declared that no special legislation is needed, as the existing laws everywhere permit the enforcement of the necessary regulations by means of a local statute. Only one thing was wanting—namely, the right of expropriation for hygienic reasons, and for that, he thought, the time was not yet come. It was desirable that the police should have the right to fix the maximum number of occupants of any tenement. It was advisable, however, to resort to police measures only if others had proved ineffective. Two of the subsequent speakers described the mortality statistics of Leipsic and Frankfort-on-the-Oder, which indicate the death-rate of each house. Another speaker expressed the opinion that municipal authorities should not only be permitted, but also required to expropriate property when the furtherance of public health demands it. In conclusion, the assembly accepted the following resolution: "The Society declares the regulation of the use of dwellings by legislation or by the police to be a sanitary necessity, and recommends the entrusting of the sanitary ædileship to local tenement offices, with powers to be more sharply defined."

The last meeting was held on the 19th inst. The first theme was the self-cleansing of rivers, which was introduced by the engineer Andreas Meyer of Hamburg. He proposed that the Society should urgently petition the Chancellor of the empire to order that the investigations respecting the self-cleansing of rivers made by Pettenkofer and the Imperial Office of Health be extended to all German rivers which play a part in the drainage of towns, in order as soon as possible to have the admissible degree of pollution definitely fixed. Special arrangements for cleansing the waste water before letting it into the rivers were necessary only if investigations on the spot showed that the self-cleansing power of the rivers themselves did not suffice. Unless the current of the river were considerably weaker than that of the town drains, it must contain at least fifteen times as much water as the drains poured into it. In such cases the polluted stream soon recovered the degree of purity which it possessed before its pollution, not only for the naked eye, but even under chemical and bacteriological tests. The cause of this was the decomposition of the polluting matter (owing probably to the action of bacteria), provided that the air had free access. The same process took place in sea-water basins in aquaria. The water was often left unrenewed for many months, and yet remained clear, and the fish preserved their health, though food was regularly thrown in, and the exuviæ of the fish were not taken out. The speaker was followed by Professor Pettenkofer and others, who brought forward facts about the pollution of the Isar and the Elbe, all of which went to show that, within certain limits, the pollution of rivers is not a source of danger.

The last topic brought before the assembly was that of school-games. This subject was treated with warm enthusiasm and minute knowledge by Herr Hermann of Brunswick, Inspector of Gymnastics, whose discourse was received with great applause. Its heads were as follows: 1. School-games, both for boys and girls, form a necessary supplement to instruction in gymnastics. 2. They are of great value, not only for the development and preservation of the health and strength of the young, but also for the discipline and training of their character. 3. Their introduction is the best means for combating the precocity of youth, and for raising the moral standard of the life of the German people at large. 4. Games ought therefore to be carefully cultivated as an important means of education, and made a permanent institution in all schools. Participation in them should be made obligatory for all, unless forbidden by a doctor. 5. The provision of sufficient playgrounds, giving both boys and girls opportunity to play for at least two hours daily, is urgently necessary.

NORTHERN COUNTIES NOTES.

(FROM OUR OWN CORRESPONDENT.)

Newcastle Hospital Sunday Fund.

THE twenty-first annual general meeting of the Newcastle Hospital Sunday Fund was held in this city on Thursday last. In the report presented the committee expressed themselves grateful to be able to record an increase in the collection, both as regards that of the churches and the factories, the amount of the former being £2120 3*s.* 2*d.*, and of the latter £2450 15*s.*; while there was received through special and outside channels £57 16*s.* 6*d.*, making, with £18 17*s.* 1*d.* for interest, a grand total for the 1890 collection of £4647 12*s.* 7*d.*, the largest sum received by the fund. The increase in the church and chapel collections over the previous year was £311, while the increase from the factories was £256 11*s.* 8*d.*, or a total increase from the two sources of £287 12*s.* 8*d.* The total sum now collected through the fund has amounted to £72,150 16*s.* 4*d.* It also appeared that after making grants, purchasing letters, &c., the fund closed with a balance of £450 in hand.

The Ambulance Movement in the North.

Important meetings have been held in South Shields and Coldstream in furtherance of ambulance work. South Shields is worthy of credit in respect of the establishment of the Volunteer Life Brigade so far back as 1875, as it is also noted for the invention of the life-boat. About two months ago an ambulance class was formed at Coldstream Railway Station under the auspices of the St. John Ambulance Association. The usual course of lectures was gone through, Dr. Dinsmore being the instructor. Every member passed a successful examination. Dr. R. Anderson acted as examiner. At the close of the examination a hearty vote of thanks was accorded to Dr. Dinsmore for his valuable services to the class.

The Cleanest Workhouse in England and Wales.

Lanchester (county Durham) Workhouse should henceforward be a standard amongst workhouses for cleanliness, according to the communication read from the Local Government Board, in which the lunacy visitor, Mr. C. P. Philips, says: "I agree with my colleague, Dr. Southey, that there is no workhouse in England and Wales which can show such a high state of cleanliness and is so well

painted throughout its interior as this one, and no patients of the imbecile class are more kindly treated anywhere. The female imbeciles are kept clean and tidy, so is the only man—an idiot."

Bequest to the Jarrow Provident Dispensary.

Mrs. Shorthose, for many years in the service of the Ellison family, who died lately at Betteshanger, Kent, left nearly £200 to the Liddell Provident Dispensary, Jarrow.

Northern Medical Officers of Health.

An attempt is being made to form a northern branch of the Society of Medical Officers of Health, and circulars have been sent out inviting the attendance of the medical officers of health in Northumberland, Cumberland, Durham, and Westmoreland to a conference to be held in the Durham College of Medicine at Newcastle on the 24th inst.

Death from Chronic Lead Poisoning.

Another of these painful cases of chronic lead poisoning with a fatal result has taken place here. The sufferer was a young woman aged twenty, and she had worked for two years at a whitelead factory on the Tyne. An inquest has been held, and a verdict returned in accordance with the evidence.

Memorial to Albany and John Hancock.

A committee has been formed to secure the erection in the Natural History Museum, Newcastle, of a memorial tablet to the memory of Albany and John Hancock, as a record of their services to the Society and their lifelong devotion to the study of natural history; and no doubt it will before long be carried into effect. The Museum itself is a memorial of the Hancocks.

An Explosion averted.

A fire broke out last Monday afternoon on the premises of Mr. Campbell, dentist, in this city. The fire originated in the upper storey of the house or workroom, where three assistants were engaged, who escaped by the roof on to another house. Mr. Campbell, who was engaged in his consulting-room below, remembering on the alarm being given that there was a 100 gallon cylinder of nitrous oxide gas stored near the flames, made his way through the smoke to it, and safely removed it, and thus averted an explosion.

Newcastle-on-Tyne, Sept. 22nd.

SCOTLAND.

(FROM OUR OWN CORRESPONDENTS.)

Leith Hospital: Appointment of Residents.

AT the half-yearly election of resident medical officers for Leith Hospital, Mr. Watson, M.B., C.M., was appointed house surgeon; and Miss Alice Moorhead, who holds the triple Scottish qualification, was appointed house physician, in succession to Miss Alice M'Laren, M.B. Lond. It may be remembered that the female medical students in Edinburgh receive their clinical instruction at this hospital.

Scarlet Fever at Leith Hospital.

This is one of the general hospitals which still sets apart wards for the reception of patients suffering from infectious diseases. The other day a case was admitted suffering from severe or malignant scarlet fever, and the porter assisted in carrying the patient to the ward. The porter's daughter thereafter took scarlet fever, having the contagium transmitted perhaps by her father. She, again, is supposed to have conveyed it to some of the nurses with whom she came in contact, and they, again, to some of the patients in the general wards, the house physician becoming also infected. Whatever the exact order and vehicle of infection may have been, there appears to be no doubt that, as the result of admitting the scarlet fever patient, the porter's daughter, several nurses and patients, and the house physician were infected. This would seem to afford an indication of the undesirability of having wards in a general hospital for the treatment of zymotic diseases. Doubtless isolation can be theoretically perfect, but practically there are many points at which there is necessarily a danger of its breaking down, no matter how perfect it may seem.

Health of Leith.

The number of deaths in Leith last week was 23, making the mortality 16·3 per 1000. Of these, 11 were of children under five years.

Health of Edinburgh.

The mortality last week was 67, and the death-rate 13 per 1000. Diseases of the chest caused 20 deaths, and zymotic diseases 5, of which 3 were cases of typhoid fever. The intimations for the week were: typhoid fever 10, diphtheria 2, scarlatina 23, and measles 2.

Farewell Dinner to Mr. William Keiller, F.R.C.S. Edin.

On Tuesday evening a number of Mr. William Keiller's friends entertained him to dinner in the Waterloo Hotel, Edinburgh. Mr. Keiller is attached to the Medical School for Women, being a lecturer on anatomy there. He has been appointed professor of anatomy in a new medical school which is being started in Texas, and he will leave shortly for his new post.

Institution for Deaf and Dumb, Glasgow.

The seventeenth annual report of this institution, recently published, is of unusual interest, inasmuch as it, for the first time in the history of the society, contains a special aurists' report. This has been furnished by Dr. J. K. Love, who was appointed honorary aurist some time ago. His report contains much interesting information. Of 122 children in the house, fifty-six are scheduled as having been born deaf, fifty as born hearing, and one partially deaf, while regarding fifteen no information was obtainable. It is pointed out that these figures, especially as regards those stated to be born deaf, are not quite reliable. The proportion of deaf mutes born deaf is really small. The question of heredity of deaf mutism is touched upon. Of the 122 children, 26 had a brother or sister or other near relative deaf mute or hard of hearing; in only 3 cases is any consanguinity of parents admitted, and in only 1 case was this as close as "full cousinship." It is a curious fact that in 4 cases active suppurative disease was discovered; while 32 children had their ears blocked with wax or foreign bodies, such as plugs of cotton wool, a glass bead, and a pebble. Further, evidence of old disease not now active was found in many cases, in some of which the children were scheduled as having been born deaf, lending support to the view that many such children are actually born hearing, but that the disease occurs at such an early age as to give the impression that the deafness or disease had existed at birth. Of the 122 cases, probably not 6 were "totally deaf;" the great majority were "practically deaf," could hear sounds, but could not distinguish between them, or could distinguish loud and characteristic sounds, but failed to differentiate them so as to enable them to communicate with others. About 30 children could distinguish the sounds of the human voice, 25 being able only to recognise vowel sounds, while 5 could distinguish, and in some degree articulate, consonants and some words. The report closes by directing special attention to these thirty children, and gives hints as to their proper training.

Nurses' Complaints at the Glasgow Royal Infirmary.

The complaints mentioned in THE LANCET last week of the nurses of the Royal Infirmary as to bad food and excessively long hours of duty are still under investigation by a committee of managers. Meanwhile, public interest in the matter does not seem to flag, numerous anonymous letters and several leading articles having appeared in one of the local dailies.

Alleged Illicit Traffic in Paupers' Bodies.

The Glasgow city parochial authorities have just unearthed a most objectionable practice in connexion with the disposal of paupers' bodies for dissection, which has considerably aroused public feeling. It was discovered some time ago that in addition to the average ordinary supply of "unclaimed" paupers' bodies sent to the anatomical receiving-house in College-street, in strict conformity with the requirements of the Anatomy Act, a large number of bodies had been sent for dissection which had been "claimed" by friends and left on the hands of the parochial authorities for burial; these bodies were understood to have been actually buried. It is alleged that this has been managed by a person who is now in custody charged with having "forged a number of death certificates and receipts for sums of money." In Glasgow the arrangements for the removal of bodies for anatomical purposes are well defined, and the safeguards against abuse were thought to be effective. They are under the management of the Anatomical Institute, a body pre-

sided over by the Lord Provost, and of which the magistrates and teachers of anatomy and surgery are members. The institute meets once annually, when the whole year's business is passed under review. The receiving house is under the charge of an intelligent officer, who has held the appointment for many years, in succession to his father; while the schools and Anatomical Institute are subject to visit and inspection at unexpected and irregular times by the inspector of anatomy for Scotland, Dr. James A. Russell of Edinburgh. The terms of the Anatomy Act make no reference to "claimed" or "unclaimed" bodies, but make it legal only for those "in lawful possession" of a body to hand it over for dissection; certainly, if a body is not claimed the parochial authorities are "in lawful possession," and even when a body is claimed, if the relatives do not require that it be interred without examination, the boards seem to have the power to dispose of it for anatomical purposes. In the present case it is alleged that this disposal of bodies which had been claimed, but (probably on account of poverty) left with the authorities on the understanding that they were to be buried in the ordinary way, was effected without the knowledge of the board, and by illegal and fraudulent means. The nature of the case is such as to appeal powerfully to the public imagination, and the parochial board has, in the meantime at any rate, determined that no bodies at all, whether claimed or not, shall be given for dissection. This is nothing short of a calamity for the medical schools, which are just about to open for the winter. The anatomical and surgical teachers of the city have always worked hand-in-hand with the parochial and city authorities, and have used every precaution to prevent irregularities; in this instance there is no breath of a charge against them. It will therefore be a grave injury and injustice to them and to the students who throng our schools if, through no fault of their own, they should be deprived of the legally authorised supply of material necessary for anatomical and surgical instruction.

Aberdeen University Council.

A meeting of the General Council of the University of Aberdeen was held in Marischal College on Saturday. In the absence of Principal Geddes, Professor Stephenson occupied the chair. A short discussion first took place on the time and manner of the election of assessors to the court. It was resolved: "That the Council instruct the Business Committee, in preparing the business for the ensuing statutory half-yearly meeting, to consider and report as to the time and mode of the election of assessors of the General Council to the University Court, with powers to take the opinion of the Commissioners thereupon." A report on the draft ordinances of the Commission by the committee on University changes was submitted by Dr. Bain, the convener. The question of the extension of Marischal College also came up for discussion. The proposal of the Town Council Committee to build a new medical school and sell the present buildings at Marischal College was strongly condemned. Referring to a scheme first proposed by Dr. Struthers—viz., to remove to King's College the whole of the science classes proper—Dr. Bain said this would dispense with any extension of the present building, and would provide the needful accommodation at half the cost.

Eye Diseases in Orkney and Shetland.

It seems that diseases of the eye are unusually prevalent among the natives of Orkney and Shetland, and unfortunately, owing to their almost complete isolation, the sufferers have great difficulty in procuring medical advice. This state of matters has for some time been under the consideration of the Aberdeen Association for the Blind, and the result is that the physician to the Aberdeen Institution for the Blind, Dr. McKenzie Davidson, offered to go to the islands and treat the patients free of charge. Dr. Davidson left last week, and during his stay is to make Lerwick his headquarters.

Health of Aberdeen.

At a meeting of the Public Health Committee of the Town Council, held last week, it was reported that the death-rate for the past month was 13·86 as compared with 15·59 for the preceding month. The rate is also considerably lower than in any month of August for the last ten years. Owing to the extension of the city, it was resolved to increase the sanitary staff by employing two additional officers; and it was further resolved to recommend that the public health rate for the ensuing year be raised a farthing in the pound. During last week the following cases of zymotic diseases were notified to the medical officer of health: Scarlet fever, 25; diphtheria, 2; typhoid fever, 7; typhus fever, 5; whooping-cough, 17; erysipelas, 6. The cases of scarlet fever continued to increase in number, and in his report Dr. Hay says "there is little reason to doubt that the city is going to suffer during the winter from a revival of the epidemic which we had hoped had been brought to a close at midsummer." During the month there were two deaths from influenza.

New Parochial Hospital in Dundee.

The foundation stone of the new hospital for the sick poor being erected in connexion with the East Poor-house by the Dundee Parochial Board was laid on the 12th inst., with masonic honours, by Sir Archibald C. Campbell, M.P. The ceremonial was begun at two o'clock, when the Provincial Grand Lodge of Forfarshire was opened in the City Assembly Rooms. Brother James Berry, Provincial Grand Master, presided. Sir Archibald Campbell, in a brief address, thanked those having charge of the works for inviting the Grand Lodge to be present on that occasion, and for the admirable arrangements which had been made. The new hospital, which will accommodate about 300 patients, will consist of a central administrative block, with pavilions on each side, and a separate establishment in rear for the treatment of contagious diseases.

Sanitary Association of Scotland.

On Wednesday the seventeenth annual Congress of the Sanitary Association of Scotland was opened in Edinburgh. Dr. Farquharson, M.P., President of the Congress, delivered an address on a Model Hygienic State, or a Glance at the Sanitation of the Future. In the course of his remarks, Dr. Farquharson said he wished to point out the necessity for more organised attention being given in Parliament to hygienic matters by the introduction of a Minister of Public Health. Things were, no doubt, better now than they had been. County councils had introduced better hygienic machinery, but the stipends paid to officers were still too small to attract the class of men needed. He thought that the President of the Local Government Board should hand over the affairs of public health to a distinct department, whose chief should have a seat in Parliament.

Unwholesome Food.

During the month of August the sanitary inspector of Aberdeen seized, and was authorised to destroy, 1071 lb. of beef, 91 lb. of veal, 12,553 lb. of fish, and 8 lb. of fruit.

Sept. 22nd.

IRELAND.

(FROM OUR OWN CORRESPONDENTS.)

Health of Ireland for June Quarter.

THE births were equal to a rate of 24·8 and the deaths to 19·2 per 1000. Compared with the corresponding quarter of 1890, the returns of pauperism show a decrease of 1009, or 2·4 per cent., in the average number of workhouse inmates on Saturdays during the quarter, and an increase of 1689 in the average number of persons on out-door relief. The birth-rate was 0·2 under the average rate for the June quarter of the past ten years, the death-rate being 0·2 over the average for the same period. The chief zymotic diseases caused 983 deaths, being 671 under the average number in the ten preceding second quarters, affording an annual rate of 0·84 per 1000 living. Two deaths from small-pox were recorded, both occurring in Belfast; 60 deaths from measles, or 192 below the average; 66 from scarlatina, against an average of 146; 92 from typhus fever, or a decrease of 31; 136 from enteric fever; and 302 from whooping-cough, being slightly under the average. Diarrhœa caused 219 deaths, simple cholera 6, and hydrophobia, 1.

Schools of Surgery: Royal College of Surgeons.

At a cost of some £5000 the Council of the College of Surgeons have reconstructed portions of the school buildings, mainly restricted to the anatomical and physiological departments, and in a lesser degree to the chemical department. The principal dissecting-room will be 71 ft. long,

50 ft. wide, and 21 ft. high, and will be lighted by electricity when required. A special wing has been set apart for lady students, which will comprise a dissecting-room, lavatory, and cloak-rooms. The physiological department will include a histological laboratory, a room for physiological chemistry, professors' private room, a workroom, &c.

Hospital Saturday at Cork.

At a meeting of the Public Health Committee of the Corporation of Cork last week, the Mayor made a suggestion in reference to the adoption of a Hospital Saturday for this city. He said they were all aware how the city hospitals suffered from want of funds, and if they set apart one day for a special effort to help those institutions, they would obtain a collection which in the aggregate would amount to something considerable. The collection in the several wards would be under the control of the aldermen and councillors of those wards; and he thought the ladies would also help them. When first established it might not be a great success, but he was sure that after a time the people of Cork would look forward to Hospital Saturday as being a great day for helping and relieving the poor who were in need of medical aid in the various hospitals. The suggestion of the Mayor, there is no doubt, will meet with the approval of the citizens of Cork, and the first Saturday in October has been fixed for the initiation of the movement in that city.

Compound Luxation of the Ankle-joint.

Mr. Croly, President of the College of Surgeons, has published in pamphlet form a communication which he made in the Surgical Section of the Royal Academy of Medicine on compound luxation of the ankle joint. Mr. Croly, having made some remarks on the anatomy of the ankle-joint, referred to some cases of compound luxation which had come under his notice, and which bore special reference to the conservative surgery of the foot. The author deals with the subject in a manner befitting its great importance and his great experience as an operating surgeon. His practical conclusions are as follows:—In compound luxations of the ankle-joint there is usually fracture of one or both malleoli with laceration of ligaments; and if the ends of the protruded bones are fractured obliquely, or spiculated, or the periosteum detached, the end or ends of the bones should be resected. An anæsthetic should be used while effecting reduction, also flexion of leg on thigh and of thigh on pelvis; the wound being enlarged if necessary to facilitate reduction. Antiseptic dressings and drainage-tubes should be used, suitable splints being adjusted, while opium or chloral with bromide may be administered. If tension of the limb sets in, as indicated by swelling and formation of bullæ, free incisions from ankle to knee should be made. The following, Mr. Croly says, are the conditions indicating excision of the ends of bone—viz.: 1. Where the ends of the bones are deprived of periosteum, and there is difficulty in effecting reduction. 2. If the fracture at the end of the tibia is oblique, which would prevent the fractured portion from remaining on the astragalus. 3. To relieve spasm at the muscles. 4. To diminish local irritation and hasten cure.

Rabies in Dublin.

Two women who were recently bitten by a rabid dog in Dublin are being sent by the guardians of the North Dublin Union to Paris for treatment at the Pasteur Institute.

The Drainage of Kingstown.

The main drainage scheme for Kingstown and Blackrock was again before the Kingstown Town Commissioners this week, and after an animated discussion—the Board being divided on the matter—it was determined not to take any steps in reference to the scheme for the present. The ratepayers as a rule are against the imposition of any additional taxes, and the cost is the chief deterrent against carrying out Mr. Strype's plans, but it cannot be denied that the township is badly in want of a proper system of drainage.

The University Extension Lectures at Belfast.

From the programme for the autumn just issued I learn that Sir Robert Ball, LL.D., Astronomer Royal of Ireland, is to give the inaugural lecture at Belfast on Monday, Oct. 5th. Mr. J. A. Thompson, M.A., F.R.S Edin., is to give a course of twelve lectures on "The Life of Animals." There is also to be a course of six lectures on "The Body and its Health." Professor Redfern is to open with an address on "The Care of the Body"; Professor Letts will lecture on "The Air we Breathe"; Professor Sinclair on "The Channels of Infection"; Dr. John W. Byers on "Healthy Houses"; Dr. J. A. Lindsay on "The Influence of the Mind on Body"; and Dr. Strahan on "The Food we Eat."

The Lisburn Leper.

Considerable excitement was occasioned in Lisburn on Sunday, Sept. 13th, by the leper, Evans, who is blind, having escaped from the apartments specially prepared for him in the Lisburn Workhouse. Dr. M. B. Mackenzie, medical attendant at the workhouse, having heard of the matter, followed Evans and brought him back to the infirmary.

Case of Small-pox in Cork.

There is at present a patient suffering from small-pox in hospital in Cork, being the wife of the captain of a vessel which recently arrived from Spain. Every precaution has been taken to prevent the disease spreading. Complaint is made that a vessel with such a case of sickness on board should be allowed up the river.

Sept. 22nd.

Obituary.

W. B. KESTEVEN, M.D. ST. AND., F.R.C.S. ENG.

A WELL-KNOWN and much-respected member of the profession has been removed. Dr. Kesteven will be best remembered as a practitioner in Holloway, where he was held in the highest esteem by the public and by his professional brethren. But, as we shall see, he was not a mere practitioner, but intimately and creditably associated with the literature of the profession and with its best societies. He was born at West-end House, Hampstead. His father was a cloth merchant, who afterwards resided in Milk-street. In his infancy he was the subject of infantile paralysis, caused, it is said, by his being dropped by a nurse. Be this as it may, he was left lame for the rest of his life by it. Young Kesteven was apprenticed, after the fashion of the time, to Mr. George Chapman of Liverpool, somewhere, we suppose, between 1820 and 1830. His medical education was obtained at St. Bartholomew's Hospital and University College. At an early period of his professional life he acted as assistant to a practitioner in Russell-square. In 1838 he commenced practice in Holloway. Here, in connexion with his father-in-law, Henry Humes, Esq., and other gentlemen, he was one of the promoters of the Holloway and North Islington Dispensary, of which he afterwards became the first medical officer. For many years he acted as Poor-law medical officer, under the guardians of St. Mary's, Islington, of the Hornsey-road Schools, which by his care were brought into a high state of sanitary efficiency. For many years he was sub-editor of the *Medical Gazette*, under the editorship of the late Dr. Alfred Taylor, whom he assisted also in the preparation of his great work on Medical Jurisprudence. He always took special interest in the anatomy and pathology of the brain and spinal cord, and wrote many contributions thereon, as "The Anatomy of the Spinal Cord," in the *Natural History Review*, 1862; "Duchenne's Paralysis," in the *Journal of Mental Science*, 1879; "The Pathological Histology of the Spinal Cord," in St. Bartholomew's Hospital Reports in 1872; "Miliary Sclerosis of the Brain and Spinal Cord," in the *British and Foreign Medico-Chirurgical Review*, &c. He also contributed a paper on the "Pathological Histology of the Spinal Cord" to the International Medical Congress, 1881, &c. Besides this, he was a frequent contributor to medical journals on subjects of passing or public interest. He wrote also on medical ethics, and was by his own spirit and action a typical example of what a medical man should be in relation to his patients and his professional brethren. He was at once tenacious of what was honourable in the traditions of medical practice and generous and reasonable in judging his brethren for any apparent violation of them. He was at one time on the committee of the Blind Asylum, and did good work on it. He had a wide connexion with medical and other societies, including the Anthropological. Until age began to assert itself he was very regular in attendance at the meetings of the

Pathological Society, and later, and perhaps less regularly, at the Clinical Society. He was one of the founders and main pillars of the Islington Medical Society, where his ample forehead and his fine face were as welcome as they were familiar. Out of his large experience he threw light on most cases, but always with a singular diffidence, as of one learning from rather than informing others. When he felt no longer equal to the duties of general practice, he arranged to take into his house patients more or less affected with nervous complaints, to whom his medical knowledge and his genial character were invaluable. Latterly he resided at Boxhurst, Boxhill, Dorking, where indications of angina pectoris appeared, which at last, and suddenly, proved fatal, at the ripe age of seventy-nine. The profession will accord to Mrs. Kesteven, and the family which he loved so tenderly, the sympathy which the loss of one so good and so worthy excites.

W. HEMPSON DENHAM, M.R.C.S.

WE regret to record the death of Mr. William Hempson Denham, M.R.C.S, L.S.A. (Guy's), which took place at his residence, 23, Cromwell-grove, W., on the 21st inst. Mr. Denham, a man of remarkable health and vigour, was one of the oldest medical practitioners on the Register, and had carried on an uninterrupted practice for over sixty years. He was a pupil of Sir Astley Cooper. In his earlier days Mr. Denham was assistant medical superintendent at the Convict Prison, Dartmouth. Besides having contributed to THE LANCET, the deceased gentleman had written and published several medical and other works. His death, which was unexpected, occurred from syncope. He was in his eighty-fourth year.

Medical News.

UNIVERSITY OF DURHAM: FACULTY OF MEDICINE. At the Second Examination for the Degree of Bachelor in Medicine the following candidates satisfied the Examiners:—

Second Class Honours.—Robert Alex. Morris, College of Medicine, Newcastle-on-Tyne.

Pass List.—Percy Robt. Ash, Yorkshire College, Leeds; Robt. Alfred Bolam, Thos. Morrison Clayton, Edward Douglas Dingle, William Ewart Gibbs, Kennedy Campbell Hill, John Matfen Hope, and Robert William Morgan, all of the College of Medicine, Newcastle-on-Tyne; Percy Coleman, M.R.C.S. Eng., L.R.C.P. Lond., St. Thomas's Hospital; Wm. Fellowes Fisher, London Hospital; John Johnston Grace, Otago, New Zealand; Neville Claude Gwynn and Robert Cecil Leonard, both of the Bristol Medical School; Gerardo Jimenez, Guy's Hospital; Alfred Cornelius Leigh, University College, London; Louis Geo. Chas. Vintras, M.R.C.S., L.R.C.P. Lond., B.Sc. Paris, St. Mary's Hospital.

The following candidates were successful at the Examinations indicated:—

Degree of Bachelor in Hygiene.—Thomas Buckham, M.B., B.S., and William Henry Turnbull, M.B., B.S., both of Durham.

Licence in Sanitary Science.—Frank Walter Gunn, M.R.C.S., L.R.C.P., L.S.A.

SOCIETY OF APOTHECARIES OF LONDON.—The following candidates have passed the recent examinations in the subjects indicated:—

Surgery.—J. E. Bailey, Univ. Coll. Hosp.; P. C. Bardsley, Cambridge and Univ. Coll. Hosp.; W. T. Davies, London Hosp.; H. W. Roberts, St. George's; C. M. Wheeler, Royal Free.

Medicine, Forensic Medicine, and Midwifery.—C. W. Allen, St. Mary's; H. S. Cooper, St. George's; P. C. De Wet and W. S. McGeagh, St. Thomas's; C. M. Wheeler, Royal Free.

Medicine and Forensic Medicine.—J. S. Newington, Edin. Univ.; W. R. Nicol, Montreal.

Medicine and Midwifery.—H. B. T. Symons, Aberdeen Univ. and Charing-cross Hosp.

Forensic Medicine.—V. H. Barr, Guy's; A. C. Fenn, St. Bartholomew's.

To Messrs. Cooper, De Wet, McGeagh, Newington, Nicol, Roberts, and Symons, and to Miss Wheeler, was granted the Diploma of the Society, entitling them to practise Medicine, Surgery, and Midwifery.

At the examination in Arts, the following passed in all the subjects required for registration:—

First Class (in order of merit).—G. B. Brown, A. R. Heath, S. W. St. Cedd, J. N. Walker.

THE CONGRESS OF HYGIENE.—The Maharajah of Mysore has sent a subscription of £100 to the funds of the International Congress of Hygiene and Demography.

FOOTBALL CASUALTIES.—During a Rugby football match on Saturday at Widnes, between Widnes and Dukinfield, a player, one of the Dukinfield half-backs, had his shoulder-blade fractured.

MEDICAL MAGISTRATE.—The name of Robert Charnley Smith, M.D. St. And., L.F.P.S. Glasg., has been placed on the Commission of the Peace for the city of Manchester.

ST. BARTHOLOMEW'S HOSPITAL.—It is proposed to spend £3000 or more in improving the sanitation of this hospital. The plans have been submitted to the City Commissioners of Sewers, who have requested their engineer and medical officer to examine them and submit a report.

THE CONDITION OF THE THAMES.—The insanitary and polluted condition of the Thames is again being discussed in the neighbourhoods of Woolwich, Plumstead, and Erith. It is stated that a deputation from the Woolwich and Erith Local Board will shortly wait upon the Council, urging the necessity of prompt action.

A CONVALESCENT HOME FOR BIRMINGHAM.—The general committee of the Birmingham Hospital Saturday Fund has resolved to purchase a property at Tyn-y-Coed, near Llandudno, comprising a mansion, farm buildings, grounds, and twenty-one acres of land, for £7500, for the purpose of a convalescent home, which is to contain, at first, forty beds.

GENERAL PRACTITIONERS' ALLIANCE.—A meeting of the Council of the Alliance was held at the offices, 29, Threadneedle-street, on the 9th inst. Present: Messrs. G. Brown (President); F. H. Corbyn; Hugh Woods, M.D.; Campbell Boyd; J. B. Cook; and W. E. Dawson (Secretary). The minutes of the last meeting (July 24th) were read and confirmed, and nine new members were elected. Mr. W. J. Noel Bell, of Clapham-road, was elected local secretary for Brixton and Clapham districts.

HEALTH OF NATAL.—The medical officer of health of Pietremaritzburg in his report dated Aug. 1st, gives the death-rate of the city as 19·5 per 1000. The sanitary contract, under the provisions of which supervision of the premises and closets of every dwelling-house is enforced, has come into operation for the first time this year. The water of the city is declared to be excellent. Attention is being prominently directed to the necessity of proper supervision of dairies and milk supplies, and the clauses in the new Cape of Good Hope Medical Bill on this matter are quoted in the report.

THE HOSPITAL SATURDAY MOVEMENT AT BIRMINGHAM.—A novel departure of considerable interest has been undertaken with regard to this movement. At a meeting of the general committee, held on the 22nd inst., the report of the executive committee involving the details of this transaction was adopted with very little opposition. It is proposed to establish a convalescent home at Llandudno, the site of which has been surveyed, and negotiations for purchase entered into at a sum not exceeding £7500, part of this probably being let off so as to reduce the amount to £5000 odd. It is considered that the maintenance of this home when completed can be effected from the surplus of the annual Saturday collections, and that it will be an immense advantage to the working classes, whose contributions form the bulk of this fund. Some discussion arose as to making this a first charge upon the fund; the question is one of principle, and opens a field for some debate. For many years the Hospital Saturday movement has flourished under the energy and enthusiasm of its promoters, whose exertions have been unrivalled in this laudable direction. Now that the sum collected is over £10,000, the idea of dealing with the extra amount beyond this becomes a problem which may be solved by this enterprising scheme. Nothing succeeds like success; and if the contributions remain at the same rate as in former years, with the extension of the city boundaries a larger sum may confidently be expected, an outlet will be provided of material benefit to the donors, and a fresh stimulus to the enthusiasm and the personal interest of the working classes will be secured.

THE HARVEIAN ORATION will be delivered at the Royal College of Physicians by Dr. W. H. Dickinson on Monday, Oct. 19th, at 4 P.M.

DEVIZES.—The urban sanitary authority of Devizes has resolved to enlarge by two additional wards the infectious diseases hospital, at an estimated outlay of about £400.

ST. BARTHOLOMEW'S HOSPITAL AND COLLEGE.—We are asked to state that the specimens added during the current year will be on view in the Museum from the 1st until the 8th of October.

KING'S COLLEGE HOSPITAL.—The old students' dinner will be held at Limmer's Hotel on Thursday, Oct. 1st, at 7 P.M. (This announcement was inadvertently omitted from our Students' Number.)

PRESENTATION.—Dr. Thomas Creed, lately of Croom's-hill, Greenwich, has been presented by friends and neighbours, on the occasion of his leaving the locality, with a handsomely illuminated address and a purse of sovereigns as marks of esteem after his residence among them of forty-five years, and in appreciation of his valuable gratuitous services for upwards of forty years to the Royal Kent Dispensary and Miller Hospital as one of the honorary medical staff.

METROPOLITAN ASYLUMS BOARD.

Return of Patients remaining in the several Fever Hospitals of the Board at Midnight on September 22nd, 1891.

Hospital.	Beds occupied.						Total accommodation.
	Scarlet fever.	Diphtheria.	Typhus fever.	Enteric fever.	Other diseases.	Total.	
Eastern Hospital	166	47	1	61	—	275	442
North-Western Hospital	219	59	..	29	..	289	411
Western ,,	125	18	—	6	1	150	224
South-Western ,,	152	17	..	10	..	179	340
South-Eastern ,,	178	12	1	17	3	211	462
Northern ,,	208	31	..	26	...	265	480
Totals	1048	175	2	140	4	1369	2359

Appointments.

Successful applicants for Vacancies, Secretaries of Public Institutions, and others possessing information suitable for this column, are invited to forward it to THE LANCET *Office, directed to the Sub-Editor, not later than 9 o'clock on the Thursday morning of each week for publication in the next number.*

AITKEN, D. W., M.B., C.M. Edin., has been appointed Public Analyst to the Western District, Haddingtonshire.

BARKER, W. R. O., L.A.H. Dub., has been appointed Medical Officer to the South City Dispensary (Grand Canal-street Dispensary).

BERESFORD, R. DE-LA-POER, M.D. Glasg., L.R.C.P. Lond., has been reappointed Medical Officer of Health for the Oswestry Rural and Urban Sanitary Districts.

BOASE, R. D., L.R.C.P. Lond., M.R.C.S., has been appointed Medical Officer of Health for the Paul Urban Sanitary District of the Penzance Union.

BROWN, RICHD., M.B., B.S. Durh., has been appointed Medical Officer for the Winlaton Sanitary District, and also Public Vaccinator for the Parishes of Winlaton and Stella, Gateshead Union.

DICK, JAS., M.D. Glasg., L.R.C.S. Edin., has been reappointed Medical Officer for the Harrington Sanitary District of the Whitehaven Union.

DOBIE, D. R., M.B., C.M. Edin., has been appointed a District Medical Officer, Berwickshire.

EATON, OLIVER, L.R.C.P. Lond., M.R.C.S., has been appointed Medical Officer for the Seventh District of the Kingsbridge Union, vice Sandford, resigned.

FORSYTH, ROBERT, M.D., C.M. Glasg., has been reappointed Medical Officer of Health for the Drighlington Urban Sanitary Districts.

GARDNER, JAS. CLARK, L.R.C.P., M.R.C.S., has been appointed Medical Officer and Public Vaccinator for the Harraton District of the Chester-le-Street Union, vice Jackson, deceased.

GRAHAM, J. H. P., M.R.C.S., L.R.C.P. Lond., has been appointed Assistant House Surgeon to the Royal Albert Hospital, Devonport.

KELLY, C., M.D. Lond., L.R.C.P., M.R.C.S., has been appointed Medical Officer of the Urban Sanitary District of Horsham.

KYNOCH, P., L.R.C.P., L.R.C.S. Edin., has been appointed a District Medical Officer, Berwickshire.

LE RICHE, P. T., M.R.C.S., L.R.C.P. Lond., L.S.A., has been appointed Visiting and Consulting Physician to St. Raphael's Hospital, Worthing, vice Francis H. Bernard.

LEVICK, GEORGE D. B., M.R.C.S., L.R.C.P. Lond., L.S.A., has been appointed House Surgeon to the Middlesex Hospital.

MALET, HENRY, M.D. Dub., has been reappointed Medical Officer of Health for Wolverhampton.

MARTIN, JOSEPH H., M.R.C.S., has been appointed Medical Officer for the Wistow District of the St. Ives Union, vice Few, resigned.

MAYNARD, JOHN S., M.B., C.M. Edin., has been appointed House Surgeon and Secretary to the Stourbridge Dispensary, vice F. G. Gardner, resigned.

MOORE, STANLEY, L.K.Q.C.P., L.R.C.S. Irel., has been appointed Medical Officer for the Baldoyle Dispensary District.

MUIR, ROBERT D., M.R.C.S., L.R.C.P., has been appointed Assistant House Surgeon to the Poplar Hospital for Accidents.

RODEN, PERCY A., M.B., C.M. Aberd., has been appointed Medical Officer of the Droitwich Union.

SANDERS, CHARLES, M.B. Lond., M.R.C.S., has been appointed Honorary Surgeon to the West Ham Hospital, vice A. A. Lipscomb, resigned.

SHAPLAND, J. D., M.R.C.S., has been appointed Medical Officer for the Exmouth Sanitary District of the St. Thomas Union, vice Cock, resigned.

SHIVES, JOHN, M.D., C.M. Aberd., has been reappointed Medical Officer of Health for the Liversedge Sanitary District of the Dewsbury Union.

SKINNER, D. S., M.D. Brussels, M.R.C.S., L.R.C.P. Lond., has been reappointed Medical Officer of Health for Willesden.

SLOAN, H. R., M.B., C.M. Glasg., has been appointed Medical Officer and Public Vaccinator for the Parish of Galashiels.

SMITH, H. G., L.R.C.P., L.R.C.S. Edin., has been appointed Medical Officer for the Rural Sanitary District of the Stockport Union, vice Bale, resigned.

SOMERVILLE, J. W., M.B., C.M. Edin., has been appointed Medical Officer and Public Vaccinator for the Parish of Galashiels.

SNELL, EBENEZER, M.R.C.S., L.S.A., has been appointed Admiralty Surgeon and Agent for Brighton and Blackrock Coastguard; also Surgeon for the Patcham Division of the East Sussex Constabulary.

SOMERSET, EDWARD, M.R.C.S., L.R.C.P. Lond., L.S.A., has been appointed House Surgeon to the Newport and County Infirmary, Mon.

STADDON, JOHN R., L.R.C.P. Lond., M.R.C.S., has been appointed Medical Officer for the Parish of Bramford.

STEIL, JAMES W. H., M.B., C.M. Glasg., has been appointed Medical Officer for the Colsterworth Sanitary District of the Grantham Union, vice Heaver, deceased.

SUMNER, B., M.D. Irel., L.R.C.P. Lond., M.R.C.S., has been appointed Medical Officer of Health to the Litherland Urban Sanitary District, vice Evans, resigned.

SYMINGTON, W., M.B., C.M. Edin., has been appointed Medical Officer for the Workhouse and Brampton Sanitary District of the Brampton Union, vice Armstrong, deceased.

TOOGOOD, F. S., M.D. Lond., M.R.C.S., has been appointed Medical Officer to the Infirmary and Workhouse of the Parish of St. George-in-the-East, vice Harris.

TURNER, JOHN A., M.B., C.M. Edin., has been reappointed Medical Officer of Health for the Blaby Union Rural Sanitary Authority.

WARD, JOHN A., M.R.C.S., has been appointed Assistant Medical Officer to the Chelsea Union.

WELSH, R. C., M.B., C.M. Edin., has been reappointed Medical Officer for the Sandy and Tempsford Sanitary District of the Biggleswade Union.

WILLIAMS, ERNEST G. H., M.R.C.S., L.R.C.P., has been appointed Senior House Surgeon to the Poplar Hospital for Accidents, E.

WILSON, A. C. J., L.R.C.P. Edin., M.R.C.S., has been reappointed Medical Officer of Health for Thurlstone.

WOODFORDE, W. T. G., M.D. Lond., has been reappointed Medical Officer of Health for Abingdon.

Vacancies.

For further information regarding each vacancy reference should be made to the advertisement.

BELGRAVE HOSPITAL FOR CHILDREN, 79, Gloucester-street, S.W.—House Surgeon. Board, lodging, fuel, and light provided.

BOLTON INFIRMARY AND DISPENSARY.—Junior House Surgeon. Salary £100 per annum, increasing by £10 per annum to £150, with furnished apartments, board, and attendance.

BRECON INFIRMARY.—Resident House Surgeon. Salary £70 per annum, with furnished apartments, board, attendance, fire, and gas.

BURTON-ON-TRENT INFIRMARY.—House Surgeon. Salary £130 per annum, with a prospect of increase, and rooms in the Infirmary free; also coals and gas.

CHESHIRE COUNTY ASYLUM, Upton, near Chester.—Junior Assistant Medical Officer. Salary £120 per annum, with board, lodging, and washing.

CITY OF LONDON HOSPITAL FOR DISEASES OF THE CHEST, Victoria-park, E.—House Physician for six months. No salary. Board and residence and allowance for washing.

GREAT CLACTON LOCAL BOARD.—Medical Officer of Health for the district. Salary £20 per annum.

HAMPSTEAD PROVIDENT DISPENSARY.—Medical Officer for the West Hampstead Branch. (Apply to the Secretary, 23, High-street, Hampstead.)

KENT COUNTY ASYLUM, Barming-heath, Maidstone.—Third Assistant Medical Officer. Salary £150 per annum, with furnished quarters, attendance, coals, gas, washing, garden produce, and milk.

KENT COUNTY ASYLUM, Barming-heath, Maidstone.—Fourth Assistant Medical Officer and Pathologist. Salary £150 per annum, with furnished quarters, attendance, coal, gas, washing, garden produce, and milk.

MACCLESFIELD GENERAL INFIRMARY.—Senior House Surgeon. Salary £100 for the first year, with an increase of £10 for the second year, and board and residence.

NOBLE'S (ISLE OF MAN) GENERAL HOSPITAL AND DISPENSARY.—Resident House Surgeon. Salary £100 per year, with apartments, gas, coals, and washing free.

PADDINGTON-GREEN CHILDREN'S HOSPITAL, London, W.—House Surgeon for six months. Salary at the rate of £50 a year, with board, lodging, and an allowance of £2 12s. 6d. in lieu of beer.

ROYAL INFIRMARY, Hull.—House Surgeon. Salary 100 guineas per annum, with board and furnished apartments.

SECRETARY, Pyrites Company, 63, Cornhill, London.—Medical Man for a Mine situate near St. John's, Newfoundland.

SOUTH DEVON AND EAST CORNWALL HOSPITAL, Plymouth.—House Surgeon. Salary £100, with board and residence.

WALSALL COTTAGE HOSPITAL.—Resident House Surgeon. Salary £100 per annum, with board, lodging, and washing.

Births, Marriages, and Deaths.

BIRTHS.

DOBBYN.—On Sept. 17th, at The Terrace, H.M. Dockyard, Devonport, the wife of John S. Dobbyn, M.D., Fleet-Surgeon R.N., of a son.

HIND.—On Sept. 20th, at Blytholme, Stockton-on-Tees, the wife of Henry Hind, F.R.C.S., of a son.

KNOBEL.—On Aug. 20th, at Pretoria, S. African Republic, the wife of J. B. Knobel, M.B., L.R.C.S., Surgeon in charge, "Volk's" Hospital, Pretoria, of a daughter.

PEDLEY.—On Aug. 15th, at Mandalay, Upper Burmah, the wife of Dr. G. Aston Pedley, of a daughter.

WEST.—On Sept. 22nd, at Beaminster, Streatham-common, the wife of Charles J. West, L.R.C.P., M.R.C.S., of a son.

MARRIAGES.

ATWOOL—WILSON.—On Sept. 8th, at St. Paul's Church, Hull, William Tillinghast Atwool, M.R.C.S., L.R.C.P., of Gloucester crescent, Hyde-park, W., to Jean, daughter of the late Alexander Wilson, M.D., of Manchester.

HICKEY—SMITH.—On Aug. 8th, at St. George's Church, Parkes, New South Wales, by the Rev. G. F. Neild, assisted by the Rev. R. S. Smith, brother of the bride, Lewis Hickey, M.D., son of Evan L. Hickey, of Chelsea, to Fannie, younger daughter of the late Capt. Frederick York Smith, of Kingswear, Devon. [Corrected notice.]

HILL—ALEXANDER.—On Sept. 18th, at Rosslyn-hill Chapel, Hampstead, Leonard Erskine Hill, M.B. Lond., third son of G. Birkbeck Hill, D.C.L., of the Crescent, Oxford, to Janet, elder daughter of Frederick Alexander, Esq., of Denning-road, Hampstead.

LIGHTBURNE—GARMAN.—On Sept. 16th, at St. Stephen's, North Bow, Dr. Edmund A. Lightburne, fourth son of the late J. Lightburne, M.D., of Bessbrook, to Louisa Josephine, third daughter of Henry Vincent Garman, M.R.C.S., Surgeon K. Division, Met. Police.

MICHIE—BOOKER.—On Sept. 17th, at St. Nicholas' Church, Nottingham, by the Rev. H. Arnold Gem, M.A., Harry Michie, M.B., C.M. Aberd., of Regent Lodge, Nottingham, to Annie, elder daughter of the late Fredc. R. Booker, of Newbury House, Cromwell-street, Nottingham.

MOORE—CROOKENDEN.—On the 15th inst., at St. James's Church, Kidbrook, Edward James Moore, M.A., M.B. Oxon., eldest son of Thomas Moore, F.R.C.S., of Lee-terrace, to Helena (Nellie), fifth daughter of J. A. Crookenden, Esq., of Marlborough House, Blackheath.

ROE—ELLIS.—On Sept. 17th, at Holy Trinity Church, Wandsworth, Dr. A. Dumville Roe, of West Hill, Wandsworth, to Eleanor Henrietta, second daughter of Henry Ellis, Esq., of Gower House, Wandsworth.

SPURRELL—PHILPOTT.—On Sept. 16th, at Thwaite All Saints, Norfolk, William Dewing Spurrell, M.R.C.S., L.R.C.P. Lond., of Church Crookham, Hants, second son of R. J. Spurrell, Esq., of Thurgarton Hall, Norfolk, to Ada Sophia Durnford, second daughter of the Rev. N. G. Philpott, of Thwaite All Saints.

DEATHS.

DENHAM.—On Sept. 21st, at Cromwell-grove, W., William Hempson Denham, M.R.C.S., L.S.A., in the 84th year of his age.

HARRISON.—On Sept. 21st, at Braintree, John Harrison, Surgeon, aged 71.

HIND.—On Sept. 22nd, at Blytholme, Stockton-on-Tees, Emily, the beloved wife of Henry Hind, F.R.C.S.; and on the same day, Lionel Denton, their infant son.

KENYON.—On Sept. 13th, at Brynllwydwyn, Machynlleth, North Wales, in his 73rd year, John Kenyon, M.R.C.S. Eng., L.S.A., late of Hooton Pagnell, Doncaster, where he was in practice 47 years.

MUIRHEAD.—On July 17th, at Hobart Town, Tasmania, Michael Alexander Muirhead, M.R.C.S., L.R.C.P., eldest son of Mr. E. Muirhead, of Mandeville, Jamaica, aged 32.

SQUARE.—On Sept. 17th, at 22, Portland-square, Plymouth, William Joseph Square, F.R.C.S., L.S.A., aged 78 years.

WILSON.—On Sept. 14th, John William Wilson, M.D., B.Ch. Irel., formerly Medical Officer to the Toxteth Park Workhouse, Liverpool.

WOODHAMS.—On Sept. 17th, at Rye, Sussex, John Amos Woodhams, M.R.C.S., J.P.

N.B.—A fee of 5s. is charged for the Insertion of Notices of Births, Marriages, and Deaths.

METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET Office, Sept. 24th, 1891.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Dry Bulb.	Wet Bulb.	Solar Radia in Vacuo.	Maximum Temp. Shade.	Min. Temp	Rainfall.	Remarks at 8.30 A.M.
Sept. 18	29·95	S.W.	63	61	85	70	58	·13	Cloudy
,, 19	30·00	S.W.	63	62	78	67	62	·06	Raining
,, 20	29·85	S.W.	65	60	113	71	50	·25	Cloudy
,, 21	29·73	S.W.	52	51	110	64	50	·03	Raining
,, 22	29·71	N.W.	53	50	102	62	49	·07	Cloudy
,, 23	30·10	N.E.	56	54	89	62	52	·17	Overcast
,, 24	30·22	S.E.	55	53	103	68	51	..	Hazy

Notes, Short Comments, & Answers to Correspondents.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

All communications relating to the editorial business of the journal must be addressed "To the Editors."

Lectures, original articles, and reports should be written on one side only of the paper.

Letters, whether intended for insertion or for private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.

We cannot prescribe or recommend practitioners.

Local papers containing reports or news paragraphs should be marked and addressed "To the Sub-Editor."

Letters relating to the publication, sale, and advertising departments of THE LANCET *to be addressed "To the Publisher."*

We cannot undertake to return MSS. not used.

THE EARLY SENSATIONS OF TEETOTALISM.

An Old Bristolian is thanked for his interesting letter, which contains a great deal of truth. Our correspondent vividly describes a number of disagreeable sensations and feelings which characterised the early days of his teetotalism, comparable, doubtless, to those which a smoker experiences in abandoning his pipe. These are so pronounced that many have not the strength to persevere. In some cases they are so persistent as to make it wrong to persevere. Our correspondent's perseverance, however, was rewarded with success, and he is now better in both health and circumstances.

Dr. N. B. Sizer (New York).—Our correspondent's question has been referred to the writer of the passage in question, who states that it should be read as follows:—"Neelsen's Solution. Fuchsine, 1 part, dissolved in a 5 per cent. water solution of carbolic acid, 100 parts; alcohol, 10 parts."

Inquirer.—The question was answered in THE LANCET of Sept. 12th, page 641.

BRITISH MEDICAL QUALIFICATIONS IN MALTA.

To the Editors of THE LANCET.

SIRS,—In THE LANCET of Sept. 5th the information given as to the law of Malta, under the heading "British Qualifications Abroad," is not altogether correct. For a medical man holding British qualifications no examination is necessary to practise in Malta (Art. 136 of the Police Laws). He has only to show that he has been admitted to practise his profession under the provisions of an Act of the Imperial Government. A fee of £1 is charged by the Government for the warrant entitling to practise medicine.

I have the honour to be, Sirs, your obedient servant,

S. L. PISANI, M.D.,
Malta, Sept. 14th, 1891. Ch. Government Medical Officer.

"AN APPEAL."

To the Editors of THE LANCET.

SIRS,—I desire to express to you my warmest thanks for your kindness in inserting my letter, and to acknowledge the receipt of the following sums:—Anonymous, £5 5s.; A. B., £10; R. L. Bayley, £1 1s., which sums have been used to enable the lady in question to set up a Nursing and Invalid's Home at Fellows-road, South Hampstead, N.W. She is well fitted for the work, will give every satisfaction, and she trusts that the profession will support her. More help is urgently needed. References, prospectus, and terms upon application.

I am, Sirs, yours faithfully,

86, High-street, Stourbridge, Sept. 23rd, 1891. R. L. BAYLEY.

MEDICAL OFFICERS OF HEALTH AND WATER ANALYSES.

To the Editors of THE LANCET.

SIRS,—I shall be very greatly indebted to your kindness if you will be good enough to give me your opinion on the following points. My reason for troubling you is that both the law clerk and assistant law clerk of the sanitary authority are disposed, in case any controversy should arise between the authority and myself, to advise the authority that water analysis is part of my duty, and that the authority would be making a "lawful order" in ordering me to do such work:—

1. Is it an obligatory part of the duty of a medical officer of health to analyse water quantitatively or qualitatively? 2. A medical officer of health being bound to "observe and execute all the lawful orders and directions of the sanitary authority applicable to his office," would he be bound to analyse water if ordered to do so by his authority?—in other words, would the authority's order be "lawful," first, if made with offer of payment either (*a*) per sample or (*b*) per annum; secondly, if made without any offer of payment, supposing the medical officer of health to be unwilling to do any analysis, and supposing that no agreement to do analytical work were made when he was appointed? 3. A medical officer of health having voluntarily analysed water for some years, is his authority justified in passing a resolution "that the medical officer of health make an inquiry into the water-supply of a part of his district, obtain samples" (in this case two or three dozen), "and analyse them," without offering any remuneration beyond his ordinary salary? N.B.—By the terms of his appointment the medical officer of health is required to devote the whole of his time to the duties of his office. 4. The sanitary authority having purchased the needful apparatus at the request of the medical officer of health because he expressed his inability to give an opinion on water without a proper analysis, is he bound to continue making analyses indefinitely without remuneration? Would he be acting within his legal rights in refusing to continue these analyses when the fees which would have had to be paid to the public analyst since the purchase of the apparatus amount to more than the cost of the apparatus? I maintain that it is not one of the obligatory duties of a medical officer of health to make any analysis on the following grounds:—In none of the Health Acts or orders of the Local Government Board is analyses by the medical officer of health mentioned so far as I am aware, unless he be public analyst as well as medical officer of health. I maintain it is not his duty to make quantitative analyses, because he is not required to do so by the various bodies granting diplomata in public health, though he is expected to understand the methods of such analyses, the inference being that, if he be fit to become medical officer of health without showing that he is able to conduct quantitative analyses—a very different thing from understanding the *rationale* of such processes—it cannot therefore be considered that it is his duty to do such work. Further, in the schedule of the examination in Public Health at Cambridge it is expressly stated: "It is not expected that officers of health will in general be able to act as public analysts."

There is another phase of the question—namely, are medical officers of health, who, not being public analysts, do analytical work, defrauding the public analysts of the counties in which their districts are situated of fees which the public analysts have a right to earn? Apologising for troubling you at such length,

I am, Sirs, your obedient servant,

WILFRED W. E. FLETCHER, M.B. Camb.

Ormskirk, Sept. 20th, 1891.

"THE CANARY ISLANDS FOR INVALIDS."

To the Editors of THE LANCET.

SIRS,—My attention has been directed to two letters from Mr. E. J. Fernandez that appeared in your issues of July 25th and Aug. 15th. As they contain misleading statements, would you allow me to reply to them?

In the first place, I must take exception to your correspondent posing as a medical authority on this matter. In reply to his statements, in 1877 one English family alone, living in a private house, attended by your correspondent, had typhoid fever, and three members of that family died. Yellow fever never visited Grand Canary or Teneriffe. In 1888 a few cases did occur in, and were limited to, the town of Santa Cruz de la Palma, the capital of the island of La Palma, being imported there from Cuba. Your correspondent is well aware there is no "Island of Palmas," and that the outbreak was limited to the town of Santa Cruz de la Palma, 130 miles from the town of Las Palmas, the capital of the island of Grand Canary. Diphtheria and scarlet fever amongst the English are unknown. Of measles (and I have been here longer than your correspondent, being here when he first arrived), the only case I can remember was your correspondent himself, who in April or May, 1883, imported it from the coast of Africa and gave it to his household. Certainly there has been no epidemic of these diseases amongst the Spanish. Influenza did arrive here eighteen months ago; the cases were few and mild; amongst the residents and visitors there were no deaths; the second epidemic did not reach here. An epidemic of small-pox has visited these islands during the last twelve months; for some time now there have been no fresh cases. Your correspondent was again in error when he informed you a husband and wife were afflicted with the disease. Amongst the visitors or in the hotels no one has been attacked, and out of a resident English population of 200 three individuals have been affected. It goes without saying that in a town of 28,000 inhabitants there must be disease and death. The chief item in the death-rate is naturally infantile mortality (and here it is a big item) due to the usual causes—general neglect and improper feeding. If there had been that running succession of epidemics described by your correspondent, the death-rate should bear witness. With considerable difficulty I have obtained the birth-rate and death-rate from 1887 to 1890 inclusive, and I find that whilst the birth-rate has been 33·5 per 1000, the death-rate has been 22·5 per 1000 per annum. In the country districts the rates are less, ranging in some from 25·7 per 1000 per annum for the birth-rate, and 13·2 for the death-rate. I should have desired, if it had not unduly prolonged this letter, to compare these figures with those of other continental towns and districts. Owing to absence of rain there is dust in some parts of the town, but it is kept down as much as possible by means of watering the streets. In your correspondent's first letter the islands are acknowledged to be beneficial for certain diseases, but I will not trouble you further by pointing out the errors, as in the second letter it is stated your correspondent's sole intention is to prevent if possible any and every invalid going to the islands.

It is with extreme reluctance I take this much notice of your correspondent's letters; after this, on my part any further communication from the same source will not receive recognition.

I am, Sirs, yours truly,

J. CLEASBY TAYLOR, M.B., C.M. Edin., M.R.C.S. Eng.
(With permission to practise in Spain.)

Mayor de Triana, Las Palmas, Grand Canary, August, 1891.

P.S.—There are three or four errors that I have been unable to eliminate, and that make the death-rate appear higher than it really is.

*** We have thought it advisable to omit from the above letter certain passages which did not appear to be relevant to the main issue, and must decline to insert further correspondence on the matter.—ED. L.

"MARVELLOUS CURES BY ELECTRICITY."

To the Editors of THE LANCET.

SIRS,—I enclose a copy of some correspondence which has taken place between myself and the Mayor of Brecon. I may add that a copy of the testimonial given to Mr. Varney by the Mayor has been posted on every hoarding in Cardiff.

I am, Sirs, faithfully yours,

Charles-street, Cardiff, Sept. 22nd, 1891. T. GARRETT HORDER.

"Copy of a letter from Colonel Morgan, Mayor of Brecon, to the sufferers of Cardiff.

"Mr. W. R. Varney has been in Brecon for the last fortnight. His marvellous cures by electricity have excited much astonishment and surprise. I can confidently recommend him to the sufferers of Cardiff.

"Brecon, July 30th, 1891." "JOHN MORGAN, Mayor.

"Sept. 15th, 1891.

"DEAR COLONEL MORGAN,—I notice in the *South Wales Echo* of this evening's date that a Mr. W. R. Varney announces that he brings with him a letter from you addressed to the sufferers of Cardiff, in which you extol his marvellous cures by electricity, and confidently recommend him to the sufferers of Cardiff. As you sign your letter in your official capacity as Mayor of Brecon, I imagine that Mr. Varney's skill has been proved to the satisfaction of the members of the Brecon Corporation, and that you have been requested to sign a testimonial in his favour by that body. If I am wrong in my surmises, I shall be glad to be corrected. As this is a question affecting the interests of a large body of professional men residing in Cardiff, I propose to send this letter and your answer (if you favour me with one) to the newspapers.

"Believe me, faithfully yours,

"T. GARRETT HORDER,

Hon. Sec. South Wales Division Medical Defence Union.

"To Colonel John Morgan, Mayor of Brecon."

"Ilfracombe, 18th Sept., 1891.

"DEAR DR. HORDER,—I have to acknowledge the receipt of your communication with reference to a letter I gave to Mr. W. R. Varney. Without admitting your right to question my actions, I may say that it is notorious that Mr. Varney did relieve a great deal of pain and suffering in our town; it may have been that the relief was only temporary. I fail to see why you should object to this being made known. I have no objection to your publishing this correspondence, if you desire to do so.—I am, Sir, yours very truly,

"JOHN MORGAN, Mayor of Brecon.

"Dr. Horder, 29, Charles-street, Cardiff."

"THE MEDICAL TOUT."

To the Editors of THE LANCET.

SIRS,—The constantly increasing number of touts has become a perfect nuisance. I effectually cured one extra persistent man by one day settling down for about half an hour, allowing him to thoroughly explain all he wished, and then informing him that I had previously intimated to him my perfect satisfaction with my present wholesale people, and as he would persist in annoying me he must take the consequences. That young man has never since approached

Yours truly,

Sept. 21st, 1891. A. P. H.

A CORRECTION.

To the Editors of THE LANCET.

SIRS,—In view of the coming Congress at Rome, perhaps you may like to correct an error in the translation of some words of Prof. Celli anent the absence of public baths in the Eternal City. He writes of Rome: "Non abbiamo ancora un solo bagno publico" (We have not as yet a single public bath), which by an oversight is rendered in your issue of Sept. 12th, p. 621, "We have as yet but one solitary public bath." I am, Sirs, yours faithfully,

Grosvenor-street, W., Sept. 19th, 1891. B. E. BRODHURST.

A WORD FOR THE STUDY OF PHARMACY.

DR. ALEXANDER EDINGTON, credited with the discovery of "bacterium scariatinæ, and lately appointed bacteriologist to the Cape of Good Hope, began life as a druggist's assistant in Edinburgh, and in giving some account of his successful study to one of the staff of the *Chemist and Druggist* attributed much to his unbridled enthusiasm for the microscope. "That," said he, "was why I was led on to a liking for bacteriology. I am glad I entered medicine through pharmacy; for there is nothing to equal pharmacy for making a student exact, methodical, and painstaking with his work."

HE following lines appeared in the columns of our contemporary, the *Globe*, last week.

ST. CECILIA, M.D.

"When Music, heavenly maid, was young,"
She diffidently held her tongue
De rebus scientific;
Content her airs alone should please,
Should make the frigid breast unfreeze,
The savage soul pacific.

But Music, now a matron old,
Has waxed proportionately bold,
And starts a choral college,
To cure the body's neediness,
And emulate the R.C.S.
In therapeutic knowledge.

Sweet visions fill the gentle mind,
Gifted with milk of human kindness, and imagination
Of operations on the sick,
Achieved with quaint orchestral trick,
And vocal variation.

What dulcet drugs would be distilled
For those who practise what the guild
So eloquently preaches—
Gavottes to help the man who halts,
And *suites* to take the place of "salts,"
And lullabys of leeches.

A rhythmic *recipe* might read—
"Take first of Brahms' one *lieder-lied*,
A *scena* by Beethoven,
'My Pretty Jane,' 'Should he upbraid,'
A verse of Gounod's 'Serenade,'
With *obbligato* woven.

"Add—if the symptoms urgent be—
Some portions of a Mass in B,
An *aria* from 'Norma';
Perform this programme to the end,
Until the pulse begins to mend,
Th' extremities get warmer."

Specifics doubtless will be found,
Affichés far as "world-renowned."
Sponsored by some Tone-master,
Thus Gluck might cut out *eau de* Dill
And Mendelssohn replace a pill,
And Meyerbeer a plaster.

The "Lyric Lancet" shall relate
How, at a monster Wagner-*fête*
(Tho brass *sempre crescendo*),
One hundred limbs were cleft in twain,
And yet was heard no sound of pain
(*Absit* all innuendo!)

But let not some poor *nervous* trust
His too impressionable dust
To treatment so æsthetic;
Or St. Cecilia, on the sly,
Might raise her patient to the sky
In manner energetic.

COTSFORD DICK.

Dr. Ainley.—In a paper by Dr. Francis (*Practitioner*, August, 1884) he says that oxygen is supplied to practitioners in London and vicinity by Messrs. Armbrecht, Nelson, and Co., 2 and 3, Duke-street, Grosvenor-square.

UNIVERSITY DEGREES.

To the Editors of THE LANCET.

SIRS,—Your correspondent, "L.R.C.P. Ireland," is hardly correct in saying that a graduate of Trinity College, Dublin, can take a degree at Oxford or Cambridge without examination. I assume, of course, that he is speaking of the medical degree. At Oxford graduates of Cambridge or Dublin can only take the M.B. or M.D. of that University after passing all its medical examinations. At Cambridge an Oxford or Dublin graduate must, in addition to other steps, first obtain the permission of the University Council to make application for the degree, and, secondly, the application must be approved by a Special Grace of the Senate.

I am, Sirs, yours very truly,

Sept. 22nd, 1891. M.A. OXON., M.D. CANTAB.

"PROVIDENT MEDICAL ASSOCIATIONS."

To the Editors of THE LANCET.

SIRS,—Permit me to reply to "Fiat Lux" that I do not justify the improper action of the committee, but that the specific object of my letter was, as far as possible, to rectify it; for it is certain while these associations are so well supported by the medical profession they will continue to exist. For this appointment there were thirty-nine candidates, ten holding University degrees.

I am, Sirs, yours faithfully,

Dunstable, Sept. 19th, 1891. CHAS J. LATHBURY

"THE TITLE OF F.R.C.S."

To the Editors of THE LANCET.

SIRS,—I have no desire to take part in the controversy under the above heading, as I consider it a very undesirable one; but I wish, in the interests of truth, to correct a statement made by "L.R.C.P. Ireland" in your issue of to-day. He states that the English College of Surgeons admits its members to a "modified" examination for the diploma of Fellow. That is not the case, and such an assertion is absolutely unwarranted.

I am, Sirs, yours faithfully,

Brighton, Sept. 19th, 1891. JAMES TURTON, F.R.C.S. Eng.

To the Editors of THE LANCET.

SIRS,—Your correspondent, "F.R.C.S.E., M.R.C.S.," would do better to sign himself "F.R.C.S. Edin." or "F.R.C.S. Ed.." "E." is the initial letter of England as well as of Edinburgh. If it is desirable, as I think it is, to indicate the sources whence qualifications are derived, then surely only such abbreviations should be used as are incapable of misconstruction.

I am, Sirs, yours faithfully,

September, 1891. YORKSHIRE.

INJECTION OF SALINE SOLUTION FOR HÆMORRHAGE.

To the Editors of THE LANCET.

SIRS,—I see that I made a mistake in the letter which you kindly published in THE LANCET of this week, in that I stated that the normal saline solution used for injection consisted of twenty grains of common salt to a pint of water, instead of a drachm of the salt to a pint. May I trouble you to insert these few lines, and so rectify the error resulting from a slip of the pen.

I am, Sirs, yours faithfully,

St. Thomas's-street, S.E., Sept. 19th, 1891. W. ARBUTHNOT LANE.

Anxious Inquirer.—We can say nothing as to the legality of the step taken by the committee, which must depend upon the conditions under which the appointments in question are held. Certainly no such change as that contemplated ought to be retrospective in its effect; it would be most unusual to make it so; but, indeed, the action already taken by the committee in this matter is, we believe, without precedent.

Mr. D. Buchanan Ross (Bothwell) is referred to THE LANCET, vol. ii., 1890, which contains letters recording observations similar to those of our correspondent.

Dr. Th. Weyl.—The readers of the papers at the Sections should be addressed personally on the matter.

T.—Perhaps our correspondent will kindly indicate the number in which the paragraph appeared.

ERRATUM.—In our Manchester correspondent's letter of last Saturday's LANCET a misprint occurs. "Shelford" Local Board should have been *Stretford* Local Board.

COMMUNICATIONS, LETTERS, &c., have been received from—Mr. Aveling, London; Dr. Adamson, Glasgow; Mons. F. Alcan, Paris; Mr. R. L. Bailey; Professor Barrett, Dublin; Dr. Berry, Keighley; Mr. Brown, Douglas; Dr. Blandford, London; Mr. Brodhurst, London; Mr. T. B. Browne, London; Dr. Blackburn, Bothwell; Messrs. Burroughs and Co., London; Mr. Böttinger, Elberfeld; Mr. Birchall, Liverpool; Mr. Cornish, Manchester; Mr. Coates, London; Messrs. Cassell and Co, London; Dr. Claiborne, New York; Dr. Ward Cousins, Southsea; Mr. Clutton, London; Dr. Dale, Shanklin; Mr. Dixon, Dover-court; Mr. A. Descroix, London; Mr. A. Denham, London; Mr. A. Duke, Dublin; Mr. Essex, Pontypool; Mr. Fournet, London; Mr. Fox, Manchester; Dr. Forsyth, Berwickshire; Messrs. Fannin and Co., Dublin; Mr. Farrington, Clapham; Dr. Fletcher, Ormskirk; Mr. Grain; Mr. Gregson, London; Mr. Gibson, Oxford; Mr. G. Herring, London; Dr. C. F. Hutchinson, Scarborough; Messrs. Hopkinson and Son, Nottingham; Mr. F. Hayden, London; Miss Hart; Mr. Victor Horsley; Mr. S. Hooker, Hastings; Mr. Hand; Dr. T. E. Hill, South Shields; Mr. Hornibrook, London; Dr. Illingworth, Clayton; Mr. F. B. Jessett, London; Mr. Juler, London; Dr. James, Edinburgh; Mr. Jones, Ruabon; Mr. Krohne, London; Messrs. Keidel and Co., Durban; Dr. Kirk, Partick; Mr. King, Essex; Messrs. Keith and Co., Edinburgh; Mr. Lawson, Newcastle-on-Tyne; Dr. Langford, East Finchley; Mr. Lathbury, Dunstable; Mr. W. A. Lane, London; Dr. Murrell, London; Dr. Menzies, Brighton; Messrs. Maclean and Co., Edinburgh; Dr. H. H. Murphy, Twickenham; Messrs. Maclehose and Sons, Glasgow; Mr. Moring, London; Dr. Manning, New South Wales; Dr. Moorhead, Burton-on-Trent; Mr. F. W. Mann, Sutton; Mrs. Millard, Teddington; Dr. Neale, Hampstead; Dr. D. Newman, Glasgow; Messrs. Oliver and Boyd, Edinburgh; Dr. Pisani, Malta; Mr. Potter, Colchester; Dr. B. W. Richardson, London; Dr. Rigley, Preston; Mr. Richardson, Leicester; Mr. A. Roche, Dublin; Mr. D. B. Ross, Bothwell; Rev. Mr. Sutcliffe, Halstead; Messrs. W. H. Smith and Son, London; Mr. Stenhouse, Glasgow; Dr. N. B. Sizer, New York; Dr. G. C. Smith, Lyons; Mr. Sell, London; Messrs. Street and Co., London; Dr. Settle, Barrow; Dr. Steele, Florence; Messrs. E. and R. Simmons, London; M. W. G. Spencer, London; Dr. H. R. Spencer, London; Dr. Savage, Kimberley; Mr. Thatcher, Bristol; Mr. J. C. Taylor, Las Palmas; Mr. J. Turton, Brighton; Messrs. Watson and

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LETTERS, *each with enclosure*, are also acknowledged from—Dr. Bower, Bedford; Dr. Martin, Killarney; Mr. Lane, Bath; Mr. Beynon, Rock Ferry; Mr. Hankinson, Bournemouth; Messrs. Brown, Gould, and Co., London; Mr. McMordie, co. Down; Mr. Knobel, Pretoria, South Africa; Mr. Sampson, York; Mr. Booker, Notts; Mr. Robson, Colwyn Bay; Mr. Hamilton, Ashton-under-Lyne; Mr. Cornish, Shepherd's Bush; Dr. Croucher, St. Leonards-on-Sea; Mr. Rush, Hayward's Heath; Mr. Ross, Belfast; Mrs. Thomas, Cardiff; Messrs. Battle and Co., Paris; Mr. Tyte, Minchinhampton; Mr. McDougall, New Haven; Miss Kenrick, Birmingham; Mr. Woodford, Ventnor, Isle of Wight; Dr. Davies, Tilbury; Rev. E. Stevens; Messrs. King and Co., London; Mr. Howard, Gravesend; Mr. Paul; Dr. Haviland, Isle of Man; Mr. Whitworth, Cornwall; Mrs. Folkes; Mr. Clark, Melton Mowbray; Mr. Robinson, Shap; Mr. Smith, Victoria; Mr. Cochrane, Wigtown; Mr. Goldney, Newport; Mr. Morgan, Oswestry; Mr. Helby, Wandsworth; Mr. Meredith, Richmond; Mr. Casey, Skelmersdale; Mr. Wright, Ampthill; Mr. Macpherson, London; Mr. Thomas, Caerphilly; Mr. Square, Plymouth; Mr. Livy, Bolton; Messrs. Orr and Stuart, Glasgow; Mr. Waterhead, Sheffield; Messrs. Webster and Webb, Bognor; Mr. Gillingham, Chard; Mr. Kenyon; Mr. Naylor, Manchester; Dr. Gorham, Garstang; Mr. Pead, Dulwich; Mr. Hall, Beverley; Mr. Newman, London; Dr. Boreham, Torquay; Mr. May, Stoke-upon-Trent; Mr. Moorhead, Hucknall Torkard; Mr. Edwards, Birmingham; Mr. Merry, Hemel Hempstead; Rev. Mr. Thomson, Taunton; Mr. Thomas, Chester; Mr. George, Preston; Mr. Wilson, Liverpool; Mr. Gilyard, Bradford; Dr. Wood, Pontypool; Mr. Ford, Eastbourne; Mr. Huntly, Leatherhead; Mr. Heywood, Manchester; Mr. Eddison, Newark; Mr. Arrowsmith, Bristol; Mr. Wilson, Pontymister; Mr. Thin, Edinburgh; Mr. Stamford, Alfreton; Dr. Robertson, Salisbury; A. B., Paddington; Dowker; Secretary, West Bromwich District Hospital; Sarcoma, London; Alpha, London; H., Ashton-under-Lyne; E. P., London; B. P., London; Y. Z., London; A. W., Durham; O. P. Q, London; Assistant, Holborn; Tyneside, Bournemouth; W. G., Bristol; Student, London; Dens, London; F. J. C., London; Doctor, Sheffield; Medicus, Liverpool; Old Mariburian, London; Clyde, London; Permanency, London; East, London; H. J., London; Suburb, London; Medicus, Yorkshire; Medicus, Halifax; Alpha, Forest-hill; Restante, London; Rusticus, London; Medicus, London; Gwalia, London; Medicus, Margate; A. H. F., London; K., Doncaster; P. M. O., London.

NEWSPAPERS.—*The Natal Witness, La Presse Médicale, Glasgow Herald, Manchester Examiner, Times of India, Scotsman, Dundee Advertiser, Newcastle Daily Chronicle, Sussex Daily News, Methodist Times, Liverpool Daily Post, Scottish Leader, Bristol Mercury, Sheffield Daily Telegraph, Yorkshire Post, Leeds Mercury, Mining Journal, Windsor and Eton Gazette, West Middlesex Standard, Local Government Chronicle, Boston Independent, Reading Mercury, Insurance Record, Weekly Free Press and Aberdeen Herald, City Press, Hertfordshire Mercury, Sunday Times, South London Press, Windsor and Eton Express, Kentish Mercury, Metropolitan, Builder, West Middlesex Advertiser, Chemist and Druggist, Broad Arrow, Architect, Spectator, Saturday Review, Law Journal, Pharmaceutical Journal, Surrey Advertiser, Manchester Courier, Le Temps (Paris), Lincolnshire Chronicle, The Policy Holder, Hull Daily News, Sydney Daily Telegraph, Western Mail, Huddersfield Examiner, Evening Telegraph and Star (Sheffield), Royal Cornwall Gazette, Bath Chronicle, Staffordshire Sentinel, Hastings Advertiser, Citizen, Loughborough Herald, &c.*, have been received.

Medical Diary for the ensuing Week.

Monday, September 28.

ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1.30 P.M., and on Tuesday, Wednesday, Friday, and Saturday at the same hour.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations daily at 10 A.M.

ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1.30 P.M., and each day at the same hour.

CHELSEA HOSPITAL FOR WOMEN.—Operations, 2.30 P.M.; Thursday, 2.30

HOSPITAL FOR WOMEN, SOHO-SQUARE.—Operations, 2 P.M., and on Thursday at the same hour.

METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.

ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.

CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M., and each day in the week at the same hour.

UNIVERSITY COLLEGE HOSPITAL.—Ear and Throat Department, 9 A.M.; Thursday, 9 A.M.

Tuesday, September 29.

KING'S COLLEGE HOSPITAL.—Operations, 2 P.M.; Fridays and Saturdays at the same hour.

GUY'S HOSPITAL.—Operations, 1.30 P.M., and on Friday at same hour. Ophthalmic Operations on Monday at 1.30 and Thursday at 2 P.M.

ST. THOMAS'S HOSPITAL.—Ophthalmic operations, 4 P.M.; Friday, 2 P.M.

ST. MARK'S HOSPITAL.—Operations, 2 P.M.

CANCER HOSPITAL, BROMPTON.—Operations, 2 P.M.; Saturday, 2 P.M.

WESTMINSTER HOSPITAL.—Operations, 2 P.M.

WEST LONDON HOSPITAL.—Operations, 2.30 P.M.

ST. MARY'S HOSPITAL.—Operations, 1.30 P.M. Consultations, Monday, 2.30 P.M. Skin Department, Monday and Thursday, 9.30 A.M. Throat Department, Tuesdays and Fridays, 1.30 P.M. Electro-therapeutics, same day, 2 P.M.

Wednesday, September 30.

NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 10 A.M.

MIDDLESEX HOSPITAL.—Operations, 1 P.M. Operations by the Obstetric Physicians on Thursdays at 2 P.M.

CHARING-CROSS HOSPITAL.—Operations, 2 P.M., and on Thursday and Friday at the same hour.

ST. THOMAS'S HOSPITAL.—Operations, 1.30 P.M.; Saturday, same hour.

LONDON HOSPITAL.—Operations, 2 P.M. Thursday & Saturday, same hour.

ST. PETER'S HOSPITAL, COVENT-GARDEN.—Operations, 2 P.M.

SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.—Operations 2.30 P.M.

GREAT NORTHERN CENTRAL HOSPITAL.—Operations, 2 P.M.

UNIVERSITY COLLEGE HOSPITAL.—Operations, 1.30 P.M.; Skin Department, 1.45 P.M.; Saturday, 9.15 A.M.

ROYAL FREE HOSPITAL.—Operations, 2 P.M., and on Saturday.

CHILDREN'S HOSPITAL, GREAT ORMOND-STREET.—Operations, 9.30 A.M. Surgical Visits on Wednesday and Saturday at 9.15 A.M.

Thursday, October 1.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M. Surgical Consultations, Wednesday, 1.30 P.M. Ophthalmic Operations, Friday, 1.30 P.M.

UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.; Ear and Throat Department, 9 A.M.

Friday, October 2.

ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations. 2 P.M.

WEST LONDON MEDICO-CHIRURGICAL SOCIETY.—Opening Meeting of the Tenth Session. President's Introductory Address by Chas. Wells, M.D., President.

Saturday, October 3.

MIDDLESEX HOSPITAL.—Operations, 2 P.M.

UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.; and Skin Department, 9.15 A.M.

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